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1          50
OsEPSPS_Nat ATGGCGGGCGA CCATGGCGTC CAACGCCGCG GCTGCGGCGG CGGTGTCCCT
OsEPSPS_AT   ....T..A. .T.....TAG T.....A... ..C..T. .C..T...T.
OsEPSPS_ZM   ....C..T. .G.....TAG T.....G..A .C..T.... .T..T..G..

51          100
OsEPSPS_Nat GGACCAGGCC GTGGCGGCGT CGGCGGCGTT CTCGTCGCGG AAGCAGCTGC
OsEPSPS_AT   A.....A..A ..A..A...A GC..T..A.. ..A..A..T .....A..A.
OsEPSPS_ZM   A..T.....G ..T..T..CA GC..T..C.. ...CAGTA.. ..A...T.A.

101         150
OsEPSPS_Nat GGCTGCCCGC CGCGGCGCGC GGGGGGATGC GGGTGCGGGT GCGGGCGCGG
OsEPSPS_AT   ....A..A.. A..C..TA.A .C..C...A .A..TA.A.. .A....TA.A
OsEPSPS_ZM   .T..C..G.. G..T..C..A ..T..A...A .A.....C.. T..A..CA.A

151        200
OsEPSPS_Nat GGGCGGCGGG AGGCGGTGGT GGTGGCGTCC GCGTCGTCGT CGTCGGTGGC
OsEPSPS_AT   ..TA..... ..T..A.. C..A..C... ..T..TAGCA GT.....
OsEPSPS_ZM   ..CA.A..T. ....C..... A..C..C..G ..CAGC.... .CAGT..T..

```

Figure 1A

201	OsEPSPS_Nat	AGCGCCGGCG	CGAAGGCGG	AGGAGATCGT	GCTCCAGCCC	ATCAGGGAGA	250
	OsEPSPS_AT	T.....T	T.....A	.....T..	TT.A..A..T	..T...A.	
	OsEPSPS_ZM	T.....A	T.....C	A..A..T..	T..G..A..G	..AC...A.	
251	OsEPSPS_Nat	TCTCCGGGGC	GGTTCAGCTG	CCAGGGTCCA	AGTCGCTCTC	CAACAGGATC	300
	OsEPSPS_AT	.A..G.....	C..A..AT.A	..T..AAG..	..AGC..T..	.....T	
	OsEPSPS_ZM	.T..G..C..	..G.....C	..T..C..G.	....C..G..	G..TC.T...	
301	OsEPSPS_Nat	CTCCTCCTCT	CCGCCCTCTC	CGAGGGCACA	ACAGTGGTGG	ACAACTTGCT	350
	OsEPSPS_AT	..GT.G..T.	.A..T.....	G.....A...	.....T....	..TC..T.	
	OsEPSPS_ZM	..T..G..A.	:G..G..G..	..A..G..C	..G..T..A.	..TC..T.	
351	OsEPSPS_Nat	GAACAGTGAG	GATGTTCACT	ACATGCTTGA	GGCCCTGAAA	GCCCTCGGGC	400
	OsEPSPS_AT	...T.....	.....G....	..T.....A..	...T..C..G	..T..A....	
	OsEPSPS_ZM	...TCC..A	..C..G....	.....C..	A..G..A...	..GT.G..CT	

Figure 1B

401	OsEPSPS_Nat	TCTCTGTGGA	AGCAGATAAA	GTTGCAAAA	GAGCTGTAGT	CGTTGGCTGT	450
	OsEPSPS_AT	.T....A..	.G.....	.A.....C	.C..A..G..	T..A..T...	
	OsEPSPS_ZM	.GAGC..T..	G..T..C...	.G..C..GC	...A..C..	A..G..A..C	
451	OsEPSPS_Nat	GGTGGCAAGT	TTCCTGTTGA	GAAGGATGCG	AAAGAGGAAG	TGCAACTCTT	500
	OsEPSPS_AT	....G....	.C..A.....	A.....T	.G..A....	.A..G.....	
	OsEPSPS_ZM	.C..T....	.C..A..G..	...A..C..C	...A..G..	T...T.G..	
501	OsEPSPS_Nat	CTTGGGGAAC	GCTGGAATCG	CAATGCGATC	CTTGACAGCA	GCCGTGACTG	550
	OsEPSPS_AT	TC.C.....T	.C..G....	.C.....GAG	T.....T..T	.G..C..A..	
	OsEPSPS_ZM	....A...	....C....	....A..AG	.C....T..C	.G..C.....	
551	OsEPSPS_Nat	CTGCTGGTGG	AAATGCAACT	TATGTGCTTG	ATGGAGTGCC	ACGAATGAGG	600
	OsEPSPS_AT	.C.....A..	C..C.....A	.C..C..A..G.....	GA.....C.T	
	OsEPSPS_ZM	.C..A..G..	T..C.....	.C..C..G..	.C..T..T..	...G...C.C	

Figure 1C

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601                               650
OsEPSPS_Nat GAGAGACCGA TTGGTGACTT GGTGTGTCGGG TTGAAACAAC TTGGTGCGGA
OsEPSPS_AT  ...C.T..T. ....TC. T..C..A..T C.C..G.... .C..C..T..
OsEPSPS_ZM  ..AC....C. .C....TC. C..G..A..A C.T.....T .G..A..C...

651                               700
OsEPSPS_Nat TGTGCGACTGT TTCCTTGGCA CTGAATGCCC ACCTGTTCGT GTCAAGGGAA
OsEPSPS_AT  C..A..T... ....G..T. ....G..T.. G..A..CA.A ..T..A....
OsEPSPS_ZM  ...A..T... ...T.G..G. .A..G..... T..A..G..G .A.....C.

701                               750
OsEPSPS_Nat TTGGAGGACT TCCTGGTGGC AAGGTTAAGC TCTCTGGTTC CATCAGCAGT
OsEPSPS_AT  .C..T..G.. G..G..C..A .....C.... .G..G..CAG T..TTCG...
OsEPSPS_ZM  .C..G..T.. C..A..C..A .....G...T .A..A..GAG T...TC.TCG

751                               800
OsEPSPS_Nat CAGTACTTGA GTGCCCTTGCT GATGGCTGCT CCTTTGGCCC TTGGGGATGT
OsEPSPS_AT  ....TC.TT C...TC.C.. .....G ..A..A..TT .G..A.....
OsEPSPS_ZM  ....C.CT CC..GC..T. ....A..A ..AC....GT .G..C..C...

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Figure 1D

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801                               850
OsEPSPS_Nat GGAGATCGAA ATCATTGACA AACTAATCTC CATTCTTAC GTTGAAATGA
OsEPSPS_AT T.....G .....T. ....T.A.. T..C..G..T ..C..G....
OsEPSPS_ZM T..A..T... ..T..C.... .G..C..A.. ...C..G..T ..G..G....

851                               900
OsEPSPS_Nat CATTGAGATT GATGGAGCGT TTTGGTGTGA AGGCAGAGCA TTCTGATAGT
OsEPSPS_AT .T..A...C. T.....A..G .....G..T. ....C..... .AGC..C...
OsEPSPS_ZM ..C..C.GC. ....AA.A .....A.... .A..T..A.. .AG...CTC.

901                               950
OsEPSPS_Nat TGGGACAGAT TCTATATTAA GGGAGGGCAG AGTACAAAT CTCCTGGAAA
OsEPSPS_AT ....TC.T. ....C..A.. .....C... .....T..G. ....G...
OsEPSPS_ZM .....TC.G. ....C..C.. ...C..A... ..A..T..GA G...A..C...

951                               1000
OsEPSPS_Nat TGCCTATGTT GAAGGTGATG CCTCAAGCGC GAGCTATTTC TTGGCTGGTG
OsEPSPS_AT ...T.....A .....G.... .T...TCT.. .TCT..C.... C.T..G..A.
OsEPSPS_ZM ...G..C..G ..G..C..C. ....TTC... C.....C.... .....A..C.

```

Figure 1E

1001	OsEPSPS_Nat	CTGCAATCAC	TGGAGGCACT	GTGACAGTTC	AAGTTGTGG	TACGACCAGT	1050
	OsEPSPS_AT	.G..T..A..	.....A..A	.C.....	.G..C..C..	...A..A...	
	OsEPSPS_ZM	.A..T..T..	C.....T...	.T.....G.	....G.....	A..A..G..C	
1051	OsEPSPS_Nat	TTGCAGGGTG	ATGTCAAATT	TGCTGAGGTA	CTTGAGATGA	TGGGAGCAAA	1100
	OsEPSPS_AT	....A....	.C..G..G..	...C.....	.....A....	....T..C...	
	OsEPSPS_ZM	C....A..C.	.C..A..G..	C..A..A..C	.....A....	....C..T...	
1101	OsEPSPS_Nat	GGTTACATGG	ACTGACACCA	GTGTAACCGT	AACTGGTCCA	CCACGTGAGC	1150
	OsEPSPS_AT	A..A..G...	..A.....AT	CG..G..A..	T.....T	....A..A..	
	OsEPSPS_ZM	...G..T...	..A..T..GT	CA..C.....	C.....G..T	..T..G..A..	
1151	OsEPSPS_Nat	CTTATGGGAA	GAAACACCTG	AAAGCTGTTG	ATGTCAACAT	GAACAAAATG	1200
	OsEPSPS_AT	...C..C..	A..G..T..T	..G..C..G.	....T..T..	...T..G...	
	OsEPSPS_ZM	.C..C..T..	.....T....	..G..A..G.	.C..G.....	...T..G...	

Figure 1F

1201	1250
0sEPSPS_Nat	CTGATGTTG
0sEPSPS_AT	CCATGACCCT
0sEPSPS_ZM	TGCCGTTGTT
	GCACTCTTCG
	CTGATGGTCC
	1250
	1300
1251	1350
0sEPSPS_Nat	AGAGATGTGG
0sEPSPS_AT	CTTCCTGGAG
0sEPSPS_ZM	AGTAAAGGAA
	ACCGAAAGGA
	1300
	1350
1301	1400
0sEPSPS_Nat	TGGTTGCAAT
0sEPSPS_AT	TCGGACCGAG
0sEPSPS_ZM	CTAACAAAGC
	TGGGAGCATC
	GGTTGAAGAA
	1350
	1400
1351	1400
0sEPSPS_Nat	GGTCCTGACT
0sEPSPS_AT	ACTGCATCAT
0sEPSPS_ZM	CACCCCACCG
	GAGAAAGCTGA
	ACATCACGGC
	1400

Figure 1G

1401	OsEPSPS_Nat	AATCGACACC	TACGATGATC	ACAGGATGGC	CATGGCCCTTC	TCCCTCGCTG	1450
	OsEPSPS_AT	T..T..T..A	....C....	.T..A.....	T.....T...	..A..G..C.	
	OsEPSPS_ZM	T..A.....T	....C....	....A.....	G.....G...	..G.....A.	
1451	OsEPSPS_Nat	CCTGCGCCGA	CGTGCCCGTG	ACGATCAGGG	ACCCTGGTTG	CACCCGCAAG	1500
	OsEPSPS_AT	.T..T..A..	T..T..T..C	..A.....A.	.T.....C..	T..TA.A...	
	OsEPSPS_ZM	.G.....G..	...T..G..T	.....T..A.	.T.....G..	...T..T..A	
1501	OsEPSPS_Nat	ACCTTCCCCA	ACTACTTCGA	CGTTCTAAGC	ACTTTCGTCA	GGAACCTGA	1548
	OsEPSPS_AT	..G.....G.T..	T.....TTCA	..A.....C	.C...T...	
	OsEPSPS_ZM	..T.....T.	.T.....	T..G...TCA	..C..T..AC	.C.....	

Figure 1H

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```
1          50
ZmEPSPS_Nat ATGGCGGCCA TGGCGACCAA GGCCGCCGCG GGCACCGTGT CGCTGGACCT
ZmEPSPS_ZM  .....T. ....C..G.. ...A..G..C ..T..A..AA GC..C..TT.

51          100
ZmEPSPS_Nat CGCCGCGCGG TCGCGCGGCC ACCACCGCCC GAGCTCGGCG CGCCCGCCCT
ZmEPSPS_ZM  G..G..C..C ..C..TA.G. ....G.. A...AGT... A.G..A..G.

101         150
ZmEPSPS_Nat TCCGCCCCGC CGTCCGCGGG CTGCGGGCGC CTGGGCGCCG CGTGATCGCC
ZmEPSPS_ZM  ..A.G..A.. A..T.....T ..TA.A.... ....TA.AA. G..T.....A

151         200
ZmEPSPS_Nat GCGCGCGCCG CGGCGGCAGC GCGGCGGCGG GTGCAGGCGG GTGCCGAGGA
ZmEPSPS_ZM  .....A.... ....T..C.. T.....A... .....C. .C..G..A..

201         250
ZmEPSPS_Nat GATCGTGCTG CAGCCCATCA AGGAGATCTC CGGCACCGTC AAGCTGCCCG
ZmEPSPS_ZM  .....C..A .....T.... ....A..... T...T..G..A ...T.A..A..
```

Figure 2A

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```

251                               300
ZmEPSPS_Nat GGTCCAAGTC GCITTCCAAC CGGATCCTCC TACTCGCCGC CCTGTCCGAG
ZmEPSPS_ZM .CAG...AAG T...AG.... ..A.....G. .GT.G..G.. A..C..T..A

301                               350
ZmEPSPS_Nat GGGACAACAG TGGTTGATAA CCTGCTGAAC AGTGAGGATG TCCACTACAT
ZmEPSPS_ZM .....C..G. .C..A.....; T.....C... ..C..A..C. .G.....T...

351                               400
ZmEPSPS_Nat GCTCGGGGCC TTGAGGACTC TTGGTCTCTC TGTCGAAGCG GACAAAGCTG
ZmEPSPS_ZM .T.G..T... C.....G. .A.....G.. A..G.....C ..T..G..C.

401                               450
ZmEPSPS_Nat CCAAAAGAGC TGAGTTGTT GGCTGTGGTG GAAAGTTCCC AGTTGAGGAT
ZmEPSPS_ZM ....GC.C.. ...C..C... ..C..C..C. .T.....C..G.....C

451                               500
ZmEPSPS_Nat GCTAAAGAGG AAGTGCAGCT CTTCTTGGGG AATGCTGGAA TCGCAATGCG
ZmEPSPS_ZM ..G.....A. .G.:.....T. A..TC.T... ..C.....C. ....C.....
```

Figure 2B

501		550
ZmEPSPS_Nat	GTCCTTGACA GCAGCTGTTA CTGCTGCTGG TGGAAATGCA ACTTACGTGC	
ZmEPSPS_ZM	....C.T..C .....C..C. .C.....G.. A..C..C...	
Consensus	....c.g..a .....c..c. .c.....g.. a..a..c...	
551		600
ZmEPSPS_Nat	TTGATGGAGT ACCAAGAATG AGGGAGAGAC CCATTGGCGA CTTGGTTGTC	
ZmEPSPS_ZM	....C..T.. T..TC.T... ..A...C.G. ....A..G.. TC.C..C..G	
601		650
ZmEPSPS_Nat	GGATTGAAGC AGCTTGGTGC AGATGTTGAT TGTTTCCTTG GCACTGACTG	
ZmEPSPS_ZM	..GC.C.... ..C..G.. C..C..... ..C.....C. .A..C.....	
651		700
ZmEPSPS_Nat	CCCACCTGTT CGTGTC AATG GAATCGGAGG GCTACCTGGT GGCAAGGTCA	
ZmEPSPS_ZM	...C.....G A.G..G..C. .C.....G.. A..G..A..A .....A....	
701		750
ZmEPSPS_Nat	AGCTGTCTGG CTCCATCAGC AGTCAGTACT TGAGTGCCTT GCTGATGGCT	
ZmEPSPS_ZM	..T....C.. ...A..TTC. TCG.....C .....C. ....T.....G	

Figure 2C

751

ZmEPSPS_Nat

ZmEPSPS_ZM

800

GCTCCTTTGG

CTCTTGGGGA

TGTGGAGATT

GAAATCATTG

ATAAATTAAT

GC.G..

..C...C...

....G.A..

C..C..A...

..G.....

....GC.G..

801

ZmEPSPS_Nat

ZmEPSPS_ZM

850

CTCCATTCCG

TACGTCGAAA

TGACATTGAG

ATTGATGGAG

CGTTTGGTG

TC.....A

....C.CC.

TC.....A

A.A..C..G.

...T..C..T

..T..T..G.

....C.CC.

TC.....A

A.A..C..G.

851

ZmEPSPS_Nat

ZmEPSPS_ZM

900

TGAAAGCAGA

GCAATTCTGAT

AGCTGGGACA

GATTCTACAT

TAAGGGAGGT

TC.....T..

....C..C...

TC.....

..G.....T..

C.....C..A

.C.....T..

....C..C...

TC.....

..G.....T..

C.....C..A

901

ZmEPSPS_Nat

ZmEPSPS_ZM

950

CAAAAATACA

AGTCCCCTAA

AAATGCCTAT

GTTGAAGGTG

ATGCCTCAAG

..G.....T.

....A..G..

G.....G..C

..C..G..A.

.C..A..G..

..G.....T.

....A..G..

G.....G..C

..C..G..A.

.C..A..G..

951

ZmEPSPS_Nat

ZmEPSPS_ZM

1000

CGCAAGCTAT

TTCTTGGCTG

GTGCTGCAAT

TACTGGAGGG

ACTGTGACTG

...G..T..C

...C.T..G.

.C.....C..

C..C..G..A

..C.....A.

...G..T..C

...C.T..G.

.C.....C..

C..C..G..A

..C.....A.

Figure 2D

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```

1001                               1050
ZmEPSPS_Nat TGAAGGTTG TGGCACCACC AGTTTGCAGG GTGATGTGAA GTTTGCTGAG
ZmEPSPS_ZM   ....C.. ...G..A..G ..C..... .C..C..C.. A.....
1051                               1100
ZmEPSPS_Nat GTACTGGAGA TGATGGGAGC GAAGGTTACA TGGACCGAGA CTAGCGTAAC
ZmEPSPS_ZM   ..G..A..A. ....C.. T.....G..T .....T.... .GTC....G..
1101                               1150
ZmEPSPS_Nat TGTTACTGGC CCACCGCGGG AGCCATTGGG GAGGAAACAC CTCAGGCGGA
ZmEPSPS_ZM   C.....G..A ..G..C..C. A..T..C.. CC.....G..T ..G..A.....
1151                               1200
ZmEPSPS_Nat TTGATGTCAA CATGAACAAG ATGCCTGATG TCGCCATGAC TCITGCTGTG
ZmEPSPS_ZM   .....G.. .....T... .....G..C. ....T..... A.....C...
1201                               1250
ZmEPSPS_Nat GTTGCCCTCT TTGCCGATGG CCCGACAGCC ATCAGAGACG TGGCTTCCTG
ZmEPSPS_ZM   ..G.....G. .C..T..C.. ...C..C..A .....G..T. .C...AGT..

```

Figure 2E

ZmEPSPS_Nat

ZmEPSPS_ZM

1251

1300

GAGAGTAAAG GAGACCGAGA GGATGGTTGC GATCCGGACG GAGCTAACCA
...G..C... ..A...C .T.....G.. ..A... ..G...T.

ZmEPSPS_Nat

ZmEPSPS_ZM

1301

1350

AGCTGGGAGC ATCTGTTGAG GAAGGGCCGG ACTACTGCAT CATCAGGCCG
.A..C..G.. CAG...G... ..G..C.... .T..... A.....A..T

ZmEPSPS_Nat

ZmEPSPS_ZM

1351

1400

CCGGAGAAGC TGAACGTGAC GGCATCGAC ACGTACGACG ACCACAGGAT
..A.....T ..C...C.. C..T..... .A..... .T...C....

ZmEPSPS_Nat

ZmEPSPS_ZM

1401

1450

GGCCATGGCC TTCTCCCTTG CCGCCTGTGC CGAGGTCCCC GTCACCATCC
...A..... .TAG.T.G. .A..G..C.. ..A..A..T ..G..T..AA

ZmEPSPS_Nat

ZmEPSPS_ZM

1451

1500

GGGACCCCTGG GTGCACCCGG AAGACCTTCC CCGACTACTT CGATGTGCTG
.A...T..A.. T.....C ..A..G..T.T... ..C...C..C

ZmEPSPS_Nat

ZmEPSPS_ZM

1501

1521

AGCACTTTTCG TCAAGAATTA A
TCA..C.... .G.....C.G .

Figure 2F

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```
1          50
GmEPS_Nat ATGGCCCAAG TGAGCAGAGT GCACAATCTT GCTCAAAGCA CTCAAATTTT
GmEPS_GM   ....T..G. .CTCTC.C.. T..T.....C .....G..T. .C..G..A..

51          100
GmEPS_Nat TGGCCATTCT TCCAACTCCA ACAAACTCAA ATCGGTGAAT TCGGTTTCAT
GmEPS_GM   C..A.....C AGT.....A. ....A.. G..T..... AGT..A....C

101         150
GmEPS_Nat TGAGGCCACG CCTTTGGGGG GCCTCAAAT CTCGCATCCC GATGCATAAA
GmEPS_GM   .TC....T.. G..G.....A ..AAGT..GA GC..T..... T.....C..G

151        200
GmEPS_Nat AATGGAAGCT TTATGGGAAA TTTTAATGTG GGAAGGGAA ATTCCGGCGT
GmEPS_GM   ..C..TTCG. .C.....G.. C.....C..C ..C..A.... .C..A..T..

201        250
GmEPS_Nat GTTTAAGGTT TCTGCATCGG TCGCCGCCGC AGAGAAGCCG TCAACGTCGC
GmEPS_GM   C..C..A..A AGC..CAGC. .A..T..G.. T.....C AGT..T..T..
```

Figure 3A

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```

251                               300
GmEPSPS_Nat CCGAGATCGT GTTGAACCC ATCAAAGACT TCTCGGGTAC CATCACATTG
GmEPSPS_GM .T..A..T.. TC.T.....G ..A..G..T. ....A..... G..T...C.A

301                               350
GmEPSPS_Nat CCAGGGTCCA AGTCTCTGTC CAATCGAATT TTGCTTCTTG CTGCTCTCTC
GmEPSPS_GM ..T..A..A. ..AG...C.. T...A..... ...T.G..C. .A.....G...

351                               400
GmEPSPS_Nat TGAGGGAACA ACTGTTGTAG ACAACTTGTT GTATAGTGAG GATATTCATT
GmEPSPS_GM C..A.....C .....A..C. .T...C.CC. T.....C..A .....A....

401                               450
GmEPSPS_Nat ACATGCTTGG TGCATTAAGG ACCCTTGGAC TGCGTGTGGA AGATGACAAA
GmEPSPS_GM .T...T.G.. G..GC.C..A ..T.....G. .AA.A..T.. G..C..T..G

451                               500
GmEPSPS_Nat ACAACCAAAC AAGCAATTGT TGAAGGCTGT GGGGGATTGT TTCCCCTAG
GmEPSPS_GM ..T..T..... ....T..C.. C.....T.... ..C..G..... .C..T...TC
```

Figure 3B

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```
501      550
GmEPSPS_Nat TAAGGAATCT AAAGATGAAA TCAATTTATT CCTTGGAAT GCTGGTATCG
GmEPSPS_GM   ...A...AG. ....G. .A..C..G.. T.....C..C ..A..A.....

551      600
GmEPSPS_Nat CAATGAAGTC CTGACAGCA GCTGTGGTTG CTGCAGGTGG AAATGCAAGC
GmEPSPS_GM   .....AG .C.C..C..T .....C..... .G..G..... T..C..T..T

601      650
GmEPSPS_Nat TACGTACTTG ATGGGGTGCC CCGAATGAGA GAGAGGCCAA TTGGGGATTT
GmEPSPS_GM   .....CT.A. .C..C..... TA.....C.. ..A..A..T. .C..T...C.

651      700
GmEPSPS_Nat GGTGCTGGT CTTAAGCAAC TTGGTGCAGA TGTTGATTGC TTTCTTGGCA
GmEPSPS_GM   A..G.....C ..A..A..G. ....A..... C..C.....T ..CT.G....

701      750
GmEPSPS_Nat CAAACTGTCC ACCTGTTTCGT GTAAATGGGA AGGGAGGACT TCCTGGCGGA
GmEPSPS_GM   ....T..C.. G..C..GA.A ..G..C..... .....CT. G..A.....T
```

Figure 3C

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      751                               800
GmEPSPS_Nat AAGGTGAAAC TGTCTGGATC AGTTAGCAGT CAATACTTGA CTGCTTTGCT
GmEPSPS_GM   ....T.... .A..C..... G..CTCGTCA ..G...C.A. ....A.....

      801                               850
GmEPSPS_Nat TATGGCAGCT CCTTTAGCTC TTGGTGATGT GGAAATTGAG ATTGTTGATA
GmEPSPS_GM   C.....C..C ..GC.C...T .G..G..C.. ..G.....A ..C..C.....

      851                               900
GmEPSPS_Nat AACTGATTTC TGTTCATAT GTTGAAATGA CTCIGAAGTT GATGGAGCGT
GmEPSPS_GM   .GT.....AG C..G..T... ..G..... ..C..C..A.. ..A.G

      901                               950
GmEPSPS_Nat TTTGGAGTTT CTGTGGAACA CAGTGGTAAT TGGGATAGGT TCCTGGTCCA
GmEPSPS_GM   ..C..... ..G..A..... .TCC..G... ..C.... .TC.T..A..

      951                               1000
GmEPSPS_Nat TGGAGGTCAA AAGTACAAGT CTCCTGGCAA TGCTTTTGTT GAAGGTGATG
GmEPSPS_GM   C.....G.... ..A.....AA GC..A..... ..C..C..C ..G...C..

```

Figure 3D

1001	GmEPSPS_Nat	CTTCAAGTGC	CAGTTATTTA	CTAGCTGGTG	CAGCAATTAC	TGGTGGGACT	1050
	GmEPSPS_GM	...G..C..	TTCC...C.C	..C.....C.	....C..A..	C.....C..C	
1051	GmEPSPS_Nat	ATCACTGTTA	ATGGCTGTGG	CACAAGCAGT	TTACAGGGAG	ATGTAAAATT	1100
	GmEPSPS_GM	..A..C..G.	.C.....C..	...CTCATCC	C.T..A..T.	.....G..	
1101	GmEPSPS_Nat	TGCTGAAGTT	CTTGAAAAGA	TGGGAGCTAA	GGTTACATGG	TCAGAGAACAA	1150
	GmEPSPS_GM	C.....G..C	T.G..G..A.	....C..A..	...C.....	..T.....	
1151	GmEPSPS_Nat	GTGTCACTGT	TTCTGGACCA	CCACGAGATT	TTTCTGGTCG	AAAAGTCTTG	1200
	GmEPSPS_GM	.C..A..C..	G..C.....T	..CA....C.	..CG....A.	...G....C.T	
1201	GmEPSPS_Nat	CGAGGCATTG	ATGTCAATAT	GAACAAGATG	CCAGATGTTG	CCATGACACT	1250
	GmEPSPS_GM	A.G..A..A.G.....	...T.....G..	..T.....G..	

Figure 3E

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```
1251                                     1300
GmEPSPS_Nat TGCTGTTGTT GCACTATTGG CTAATGGTCC CACTGCTATA AGAGATGTGG
GmEPSPS_GM C.....C .C..G..C. .A..C..A.. T..C..A... ..G.....C.

1301                                     1350
GmEPSPS_Nat CAAGTTGGAG AGTTAAAGAG ACTGAGAGGA TGATAGCAAT CTGCACAGAA
GmEPSPS_GM .TTCA...C. T.....G..A ..C..AC... ..C..T.. T.....C..G

1351                                     1400
GmEPSPS_Nat CTCAGAAAGC TAGGAGCAAC AGTTGAAGAA GGTCCTGATT ACTGTGTGAT
GmEPSPS_GM T.GC.T.... .G..T..... G..G..... ..A..A..C. .T..C.....

1401                                     1450
GmEPSPS_Nat TACTCCACCT GAGAAATTGA ATGTCACAGC TATAGACACA TATGATGACC
GmEPSPS_GM A..A..T... ..A..GC.C. ....G..C.. ...T.....T .....C...T.

1451                                     1500
GmEPSPS_Nat ACAGAATGGC CATGGCATTCT TCTCTTGCTG CTGTGGGGA TGTTCCAGTA
GmEPSPS_GM .....T..... ..A..... ..C..T.. C..G..G..T
```

Figure 3F

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```
1501 1550
GmEPSPS_Nat ACCATCAAGG ATCCTGGTTG CACCAGGAAG ACATTTCCCTG ACTACTTTGA
GmEPSPS_GM ..G..... C..A..G.. T..T..... C..A.. T.....
```



```
1551 1578
GmEPSPS_Nat AGTCCTTGAG AGGTTAACAA AGCACTAA
GmEPSPS_GM G..GT.G..A ..A..G.... ..G..G..
```

Figure 3G

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```
1          50
BAR1_Nat ATGAGCCCGAG AACGACGCCG GCGCGACATC CGCCGTGCCA CCGAGGCGGA
BAR1_ZM   ...TCG..T. .G..C..T.. T..T....A A.A..C..T. ....A..
BAR1_AT   ....T.... .A.GA.A.. .T..T..T. .GA.A.... .A..T..

51          100
BAR1_Nat CATGCCGGCG GTCTGCACCA TCGTCAACCA CTACATCGAG ACAAGCACGG
BAR1_ZM   ....T..T. .T.....T..G..T.. .....TCT....
BAR1_AT   T.....T..T. .T..T..A. ....A.... T..T..... .CTCG..A.

101         150
BAR1_Nat TCAACTTCCG TACCGAGCCG CAGGAACCGC AGGACTGGAC GGACGACCTC
BAR1_ZM   .A.....C..T.....T .A.....T.....C.....T...
BAR1_AT   .T..T..T.. C..T.....G..A. ....T.....T..G

151        200
BAR1_Nat GTCCGTCTGC GGGAGCGCTA TCCCTGGCTC GTCGCCGAGG TGGACGGCGA
BAR1_ZM   ..G.....CA .A.....T.. ..G.....G ..T..A....T...
BAR1_AT   .A...T.AA .A..A..T.. ..G.....A ..T..T....T.....A..
```

Figure 4A

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```

201                                     250
BAR1_Nat  GGTGCGCGGC ATCGCCTACG CGGGCCCCCTG GAAGGCACGC AACGCCTACG
BAR1_ZM   A..G..T..G .....,... T..A..G.. .....,...TA.A .....,...A....
BAR1_AT   A.....T..T ..A..T.... T..A..G.. ..A..T..T .....,...T....

251                                     300
BAR1_Nat  ACTGGACGGC CGAGTCGACC GTGTACGTCT CCCCCCGCCA CCAGCGGACG
BAR1_ZM   .T.....T.. G.....C..A ..C....., A...A.A.. T..AA.A...C
BAR1_AT   .....A.. A..A..C..T ..C.....,A G...T..T.. T..AA.A...C

301                                     350
BAR1_Nat  GGA CTGGGCT CCACGCTCTA CACCACCTG CTGAAGTCCC TGGAGGCACA
BAR1_ZM   ..G..C.... .G..C..... T..G..T..C ..C.....,T .A.....G..
BAR1_AT   ...T.A..GA G....T.G.. ...T..T..T T.A.....,A. ....,....

351                                     400
BAR1_Nat  GGGCTTCAAG AGCGTGGTCG CTGTCATCGG GCTGCCCAAC GACCCGAGCG
BAR1_ZM   .....A TCT..A..G. .G..G..... CT....,A... ..T..C...T.
BAR1_AT   A....., TCT..T..G. .A..T..T.. AT....,A... ..T.....,T.
```

Figure 4B

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```
401                                     450
BAR1_Nat TGC GCATGCA CGAGGCGCTC GGATATGCCC CCCGCGGCAT GCTGCGGGCG
BAR1_ZM  .A.A.....A....T..C..T. TA.A.A.. ..CA.....
BAR1_AT  .T.A.....A.....T .....C..T. A.A..T.. ..C..T..T

451                                     500
BAR1_Nat GCCGGGCTTCA AGCACGGGAA CTGGCATGAC GTGGGTTTCT GGCAGCTGGA
BAR1_ZM  .T.A.....T...T....C...T..C....T..C....A.....
BAR1_AT  .....A....A..T..A..T.....C...A.....T. ....A.....

501                                     550
BAR1_Nat CTTCAGCCTG CCGGTACCGC CCCGTCCGGT CCTGCCCGTC ACCGAGATCT
BAR1_ZM  ....TCCT...A..T..A..T....T..G..A.....A.....
BAR1_AT  ...TTCA..T..C..T..C..TA.A..T..A..T..A..T..T..A.....

551
BAR1_Nat GA
BAR1_ZM  AG
BAR1_AT  AG
```

Figure 4C

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```

1      60
CTP2CP4NAT  ATGGGCGCAAG  TTAGCAGAAT  CTGCAATGGT  GTGCAGAACC  CATCTCTTAT  CTCCAATCTC
CTP2CP4_ZM   .....A..T.....C..C.....G..G..G..G.. .....C....
CTP2CP4_AT   .....C..G..A..T..G.. ..T..C..A..C..A....T..A..A..A..A..G..C..C..G
CTP2CP4_GM   .....C.... ..C.....C.....T. ....A..A.. .....C..G

291      120
CTP2CP4NAT  TCGAAATCCA  GTCAACGCAA  ATCTCCCTTA  TCGGTTTCTC  TGAAGACGCA  GCAGCATCCA
CTP2CP4_ZM   AGC..G.... ..C..G..G..G..GC..C.....CAGC..C.....C..A.....C..G
CTP2CP4_AT   ..A...AG..T..C....A..A..G..G..GC..T..T..A..GT.....A..T..A.....C..G
CTP2CP4_GM   ..C....GT..CA.....T..G..G..A....T...AGCT.....T.. ..A.....T

381      180
CTP2CP4NAT  CGAGCTTATC  CGATTTTCGTC  GTCGTGGGGA  TTGAAGAAGA  GTGGGATGAC  GTTAATTGGC
CTP2CP4_ZM   A..G..C..C..T..CAGC..A..C.....C..C.....C.....C..G..C....
CTP2CP4_AT   A..G.....C..C..AAG..C..C.....T..C..A.....A.. ....A.....AC..G..C..T
CTP2CP4_GM   ..C..A....T..A..AAG..CAGT.....T.....AT..CG..T.....C..G.....T

471      240
CTP2CP4NAT  TCTGAGCTTC  GTCCTCTTAA  GGTCATGTCT  TCTGTTTCCA  CGGCGTG CAT  GCTTCACGGT
CTP2CP4_ZM   AGC.....G..G..A..C.. ..G.....C..G..C..A.. .....A.....
CTP2CP4_AT   AGC..A..A..A..G..G..A.....C..A..CAG..T.....T.....T..A
CTP2CP4_GM   ..G..A...A..G..AT..G.. ..G.....A...AGT..A..T.....

```

Figure 5A

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241          GCAAGCAGCC GGCCCGCAAC CGCCCGCAAA TCCTCTGGCC TTTCGGGAAC CGTCCGCATT
CTP2CP4_NAT                                     300
CTP2CP4_ZM          G...G...T...T...C...G...G...G...A.G...
CTP2CP4_AT          ..TTCATCTA ...A..T.. T...A.G..G ..TAGC..G. .CAGT..C.. ..G...C
CTP2CP4_GM          ..TTCTTTC.A A..... G..TA.A..G AGT.....T .G..T.....T...

301          CCCGGCGACA AGTCGATCTC CCACCGGTCC TTCATGTTCC GCGGTCTCGC GAGCGGTGAA
CTP2CP4_NAT                                     360
CTP2CP4_ZM          ..G....T. ...C..A.. ..G...T...C.....G
CTP2CP4_AT          ..T....T. .AAGT..T.. A...A..AG. ....A..T.. T..T..A..G
CTP2CP4_GM          ..A..A.... .AAGC..TAG T.....C..T ..T..G..G.. ATCT..A..G

361          ACGGCGATCA CCGGCCTTCT GGAAGGCGAG GACGTCATCA ATACGGGCAA GGCCATGCAG
CTP2CP4_NAT                                     420
CTP2CP4_ZM          .....G...G....T...G....C..G.. .....
CTP2CP4_AT          ...A.A.... .T..TT.G.. T..G.....A ..T..T.... C..C..T.. ..G.....A
CTP2CP4_GM          .....T..T..... .T..T.....A..G.. ..A.....

421          GCGATGGGCG CCCGCGATCCG TAAGGAAGGC GACACCTGGA TCATCGATGG CGTCGGCAAT
CTP2CP4_NAT                                     480
CTP2CP4_ZM          ..T....A. .G..T.... C.....T...A....T..C.. ...T..G..
CTP2CP4_AT          ..A....T. ..A.A.... A..A..G...T..G....C...C.. T..T..T..
CTP2CP4_GM          ..T....T. ....T..T.. C.....T...T..T....A..C.. A..T..G.,

```

Figure 5B

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```

481      CTP2CP4NAT      540
      GCGGGCCTCC      TGGCGCCTGA      GCGGCGGCTC      GATTTCGGCA      ATGCCGCCAC      GGGCTGCCGC
      . . . . .T.G.      .C.C. . . . . .C.T. . . . .G.G.      . . . . .A.G
      .A..AT.G.      .C..T..C..      A.. . . . .A..T      .C..A..T..      .G. . . . .T
      .T..T.A.      .T..A..G..      . . . . .T..T..      .C..T.. . . . .C..A.. . . . .A..G..TA.A

541      CTP2CP4NAT      600
      CTGACGATGG      GCCTCGTCGG      GGTCTACGAT      TTCGACAGCA      CCTTCATCGG      CGACGCCTCG
      .C..T. . . . .A..G. . . . .G. . . . .C. . . . .T. . . . .G. . . . .A. . . . .
      .T..T. . . . .A..G..A..      C..G..T..C      .T..TCT.      . . . . .T. . . . .GAGC
      .T..T. . . . .G..      T..T. . . . .TTCA.      . . . . .T..T..      G..T. . . . .T

601      CTP2CP4NAT      660
      CTCACAAAGC      GCCCGATGGG      CCGCGTGTG      AACCCGCTGC      GCGAAATGGG      CGTGCAGGTG
      . . . . .A. . . . .A. . . . .TC. . . . .T. . . . .G. . . . .A. . . . .C
      . . . . .T..A      A..A. . . . .A..A..C..      .T..C..A      G..G. . . . .T..C. . . . .
      . . . . .T..A.      . . . . .A. . . . .AA.A..CC.T      . . . . .T..A      G..G. . . . .A..A..T

661      CTP2CP4NAT      720
      AAATCGGAAG      ACGGTGACCG      TCTTCCCGTT      ACCTTGCGCG      GGCCGAAGAC      GCCGACGCCG
      . . . . .C..G.      .T. . . . .T.G. . . . .GC. . . . . . . . . . .T..C. . . .
      . . . . .T..G.      .T. . . . .T. . . . .G. . . . .TC. . . . .A.      C..C. . . . .C..C. . . . .A
      .G..C..G.      . . . . .C..A.      AT.G. . . . .C      . . . . .C..T. . . . .A..C..C..T

```

Figure 5C

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CTP2CP4_NAT	721	ATCACCTACC	GCGTGCCGAT	GGCCTCCGCA	CAGGTGAAGT	CCGCCGTGCT	GCTCGCCGGC	780
CTP2CP4_ZM		..T.....	.....A..	...A.....C	.....C....	..A.....	C.....A	
CTP2CP4_AT		....G...A	.G..T.....	...G.A...	.....C....	..A..G..A..	C..G..G...	
CTP2CP4_GM		..T..T...A	.G..T..A..	...A..T..T	..A.....	...A..T..	.....T..A	
CTP2CP4_NAT	781	CTCAACACGC	CCGGCATCAC	GACGGTCATC	GAGCCGATCA	TGACGCGCGA	TCATACGGAA	840
CTP2CP4_ZM		..G.....T	.G.....	C.....G...	.....C....	...CA..G..	.....C...	
CTP2CP4_AT		.....A..A	.T..A.....	A..C..G..T	..A..C....	...TA..A..	C..C.....G	
CTP2CP4_GM		T.G.....A	.G..T..T..	T..C..G..T	.....	...T..T..	C..C..T..G	
CTP2CP4_NAT	841	AAGATGCTGC	AGGGCTTTGG	CGCCAACCTT	ACCGTCGAGA	CGGATGCGGA	CGGCGTGCGC	900
CTP2CP4_ZM		.....T..	...G....	.....G...	..G.....	...C..T..	.....CA..G	
CTP2CP4_AT		.....T...	...T..C..	...T..T..A	..G.....A..	..C..C..C..	.....A..G	
CTP2CP4_GM		.....T..	...T..C..	T..T.....C	...T..A..	..A..C.....	...T...A..G	
CTP2CP4_NAT	901	ACCATCCGCC	TGGAAGGCCG	CGGCAAGCTC	ACCGGCCAAG	TCATCGACGT	GCCGGGGCGAC	960
CTP2CP4_ZM	T..G...A	..G..T..A..G	..T.....T..	T.....A...	
CTP2CP4_AT		..A.....T	...G...A	A..T..A..G	..T.....T..	...T..A..T	
CTP2CP4_GM	T....	...G..AA	G..A..A...	..T..T....	...T.....	...C..T..T	

Figure 5D

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CTP2CP4NAT	961	CGGTCCTCGA	CGGCCTTCCC	GCTGGTTGGG	GCCCTGCTTG	TTCGGGGCTC	CGACGTCACC	1020
CTP2CP4_ZM		....G..C.	.....T.	.....G.	....C.	....GAG	T....G...	
CTP2CP4_AT		..C..G..C.	.A..G..T..	C..C..A..T	..GT....C.	C..T..A..	T..T..G..G	
CTP2CP4_GM		..C...AGC.	....G.....	A.....C	..T..T..C.	A..A.....	...T..G..A	
CTP2CP4NAT	1021	ATCCTCAACG	TGCTGATGAA	CCCCACCCGC	ACCGGCCTCA	TCCTGACGCT	GCAGGAATG	1080
CTP2CP4_ZM		....G....	.C..C.....	....G..A.G	.....G.	....C.....	T....G...	
CTP2CP4_AT		....G..T.	.C..C.....	T..A..TA.A	.....	....C..AT.	....G...	
CTP2CP4_GM		..T..A....	.C..C.....	T..T..TA.A	....AT.G.	A..T..AT.	.....
CTP2CP4NAT	1081	GGCGCCGACA	TCGAAGTCAT	CAACCCGCGC	CTTGCCGGCG	GCGAAGACGT	GGCGGACCTG	1140
CTP2CP4_ZM		..A.....	....G..G..	.....	....G..A....	T.....	T....T...	
CTP2CP4_AT		..T..T....	....G..T..	...T..TA.G	T.G..A..T.	A..G..T..	...C..T...	
CTP2CP4_GM		..T..T..T.	T.....T..	...T..TA.A	..A.....A.	T..G.....	A..T..TT..	
CTP2CP4NAT	1141	CGCGTTCGCT	CCTCCACGCT	GAAGGGCGTC	ACGGTGCCGG	AAGACCGCGC	GCCTTCGATG	1200
CTP2CP4_ZM		....G....	....T..C..	.....G	....C....	....T.....	....G..C...	
CTP2CP4_AT	G..T.	.TAGT..A..	C..A.....G	..C..C..T.	.G..T.....	T..A..C...	
CTP2CP4_GM		..G..GA.G.	T..T..AT.	...A..T..T	..C..A..T.TA.G..	A.....A...	

Figure 5E

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CTP2CP4NAT	1201	ATCGACGAAT	ATCCGATTCT	CGCTGTCGCC	GCCGCCTTCG	CGGAAGGGGC	GACCGTGATG	1260
CTP2CP4_ZM		.A....G.	...T....	G..C....	..T.G....	.C.....	C..G..C...	
CTP2CP4_AT		.....G.	.C..C....	...C..T..	.T..G..T.	.C..G..C..	A..T..A...	
CTP2CP4_GM		.T.....G.	...A....	T..C.....	G..T.....	T..G..C..	.....
CTP2CP4NAT	1261	AACGGTCTGG	AAGAACTCCG	CGTCAAGGAA	AGCGACCGCC	TCTCGGCCGT	CGCCAATGGC	1320
CTP2CP4_ZM		.....T.	.G.....	...G....	TCG..T....	.G.....	G.....	
CTP2CP4_AT		....C..T.	.G..GT.GA.	G..T.....	G..T...A.G.	.G..C..G..	G..G.....	
CTP2CP4_GM		.T..A..A.	.G..GT.GA.	A..G.....	TC...A.AT	.GAGC..A..	...T..C..A	
CTP2CP4NAT	1321	CTCAAGCTCA	ATGGCGTGGA	TTGCGATGAG	GGCGAGACGT	CGCTCGTCGT	GCGTGGCCGC	1380
CTP2CP4_ZM		.G.....	.C..T..T.	C.....C..	..T.....	.C.....	C.....G	
CTP2CP4_AT		.G.....A.	.C.....	C.....C..A	..T..A....	.C..T..A..	C.....T...	
CTP2CP4_GM		.T..A....	.....T..	..T.....	..T.....TA	GCT.G..A..	C.....G..A	
CTP2CP4NAT	1381	CCTGACGGCA	AGGGGCTCGG	CAACGCCTCG	GGCGCCGCCG	TCGCCACCCA	TCTCGATCAC	1440
CTP2CP4_ZM		....T....	....C....	.....AGT	..A..G....	.....G..	C.....T	
CTP2CP4_AT		.A.....G.	....T.G..	G..T..T...	..A..T..T.	.G..G..G..	C..T.....T	
CTP2CP4_GM		.A.....A.	....TT.G..	.....T...	..T..T....	.T..A..T..	CT.G.....T	

Figure 5F

CTP2CP4NAT	1441	CGCATCGCCA	TGAGCTTCCT	CGTCATGGGC	CTCGTGTCGG	AAACCCCTGT	CACGGTGGAC	1500
CTP2CP4_ZM		.....G.	..TC....T.	G..G.....T	.....C..A.	.G.....G..	G..C..C..T	
CTP2CP4_AT		A.A.....	..TCA..T..	G..G.....A	..T..C..C.	.G..T..G..	G..C..T...	
CTP2CP4_GM		..G..A..G.	....T..T..	G..G.....T	.....AAGC.	.G..T.....	G..A..C...	
CTP2CP4NAT	1501	GATGCCACGA	TGATCGCCAC	GAGCTTCCCG	GAGTTCATGG	ACCTGATGGC	CGGGCTGGGC	1560
CTP2CP4_ZM		..C.....	....A..G..	.....A	.....	..T.....	G..C..C..G	
CTP2CP4_AT		....T..C.	.....	CTC...T..T	.....	....C.....	A..CT.....G	
CTP2CP4_GM		.....A..T.	.....T..	TTC.....T	.....T....	..TT.A.....	A..A..A..T	
CTP2CP4NAT	1561	GCGAAGATCG	AACTCTCCGA	TACGAAGGCT	GCCTGA			1596
CTP4CP4_ZM		..C.....G..T..	C.....C	..T...			
CTP2CP4_AT		..C.....	..G..G..T..	...T.....C	..T...			
CTP2CP4_GM		..A.....T.T..	...C..A..GA.			

Figure 5G

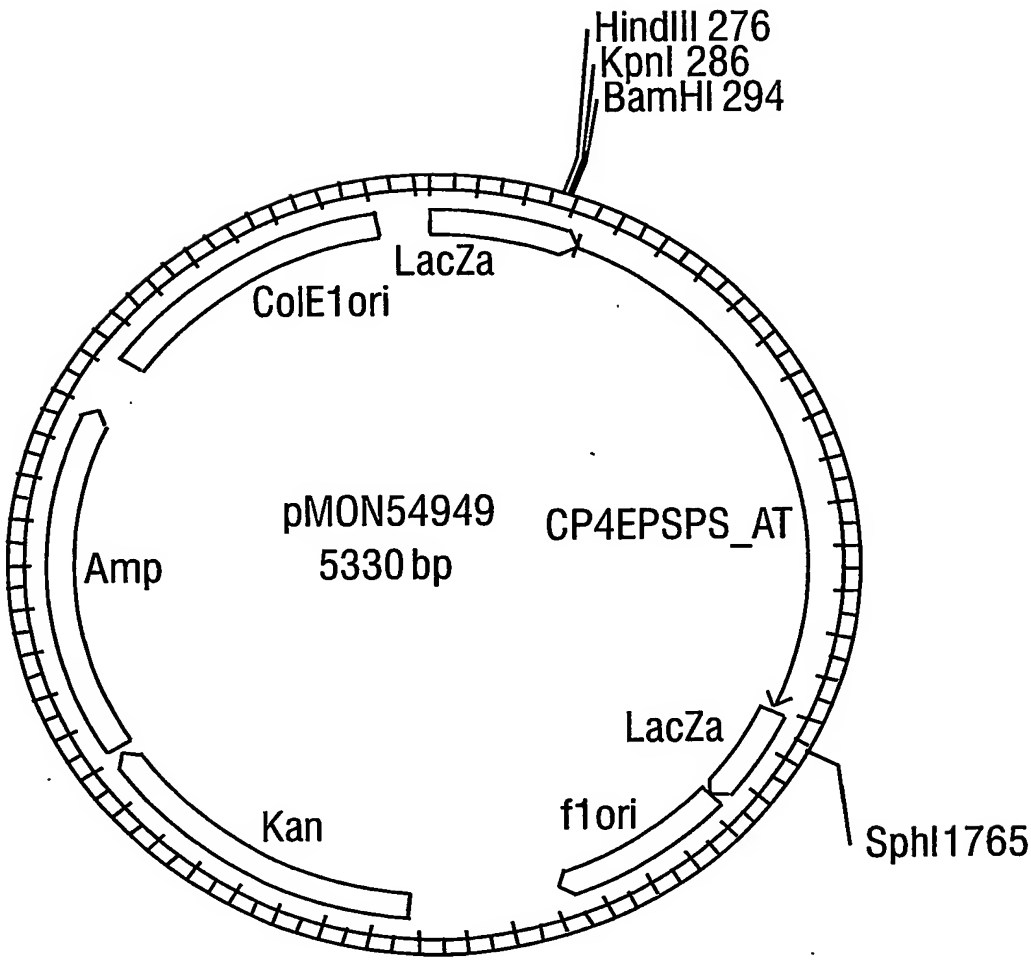


Figure 6

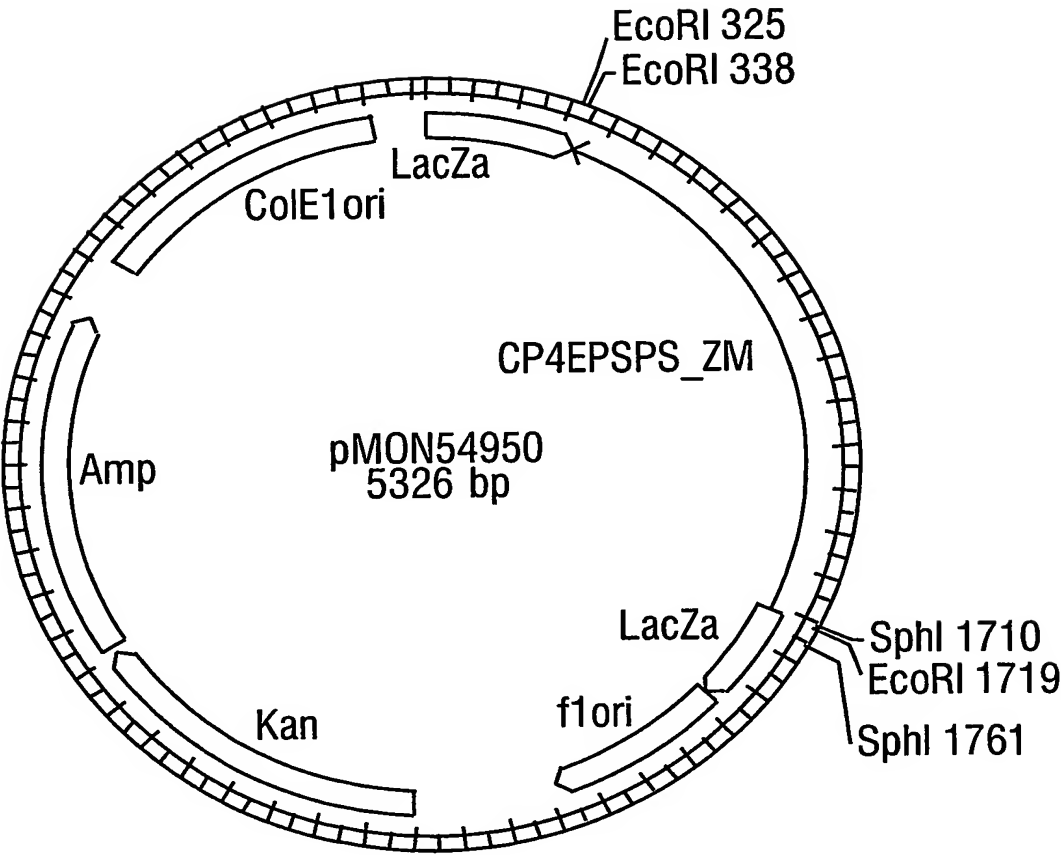


Figure 7

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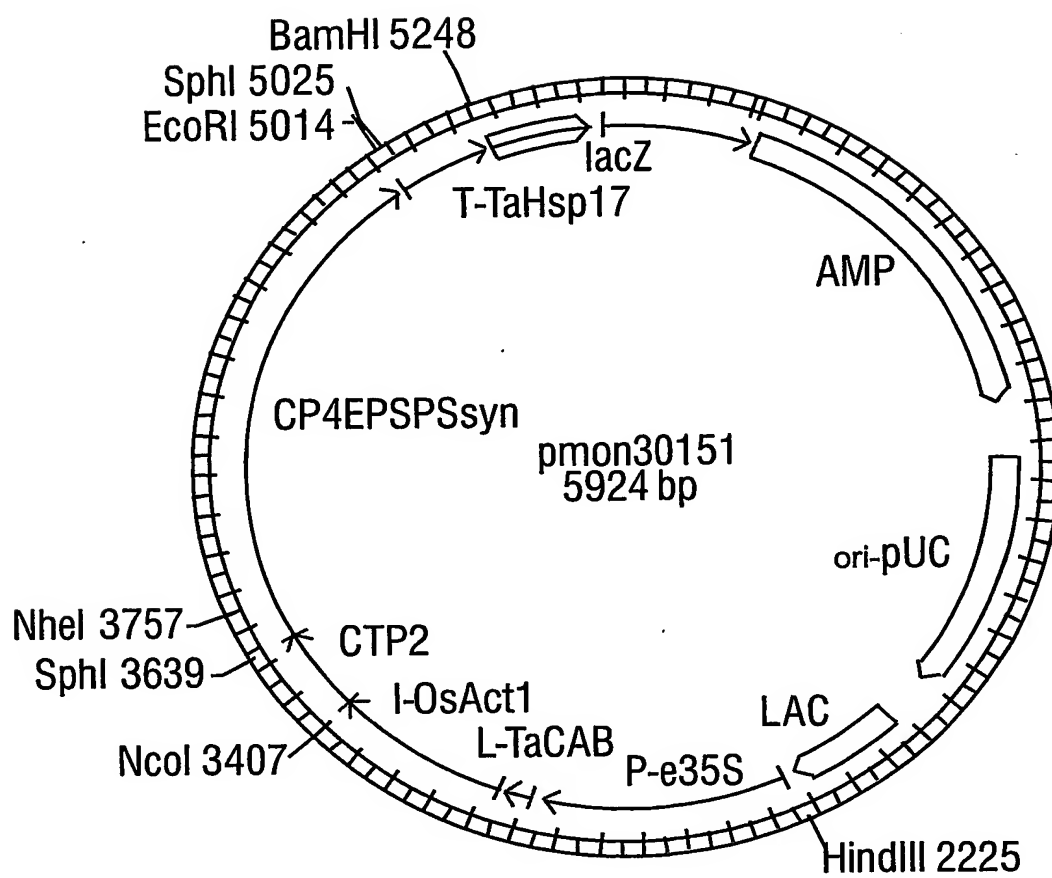


Figure 8

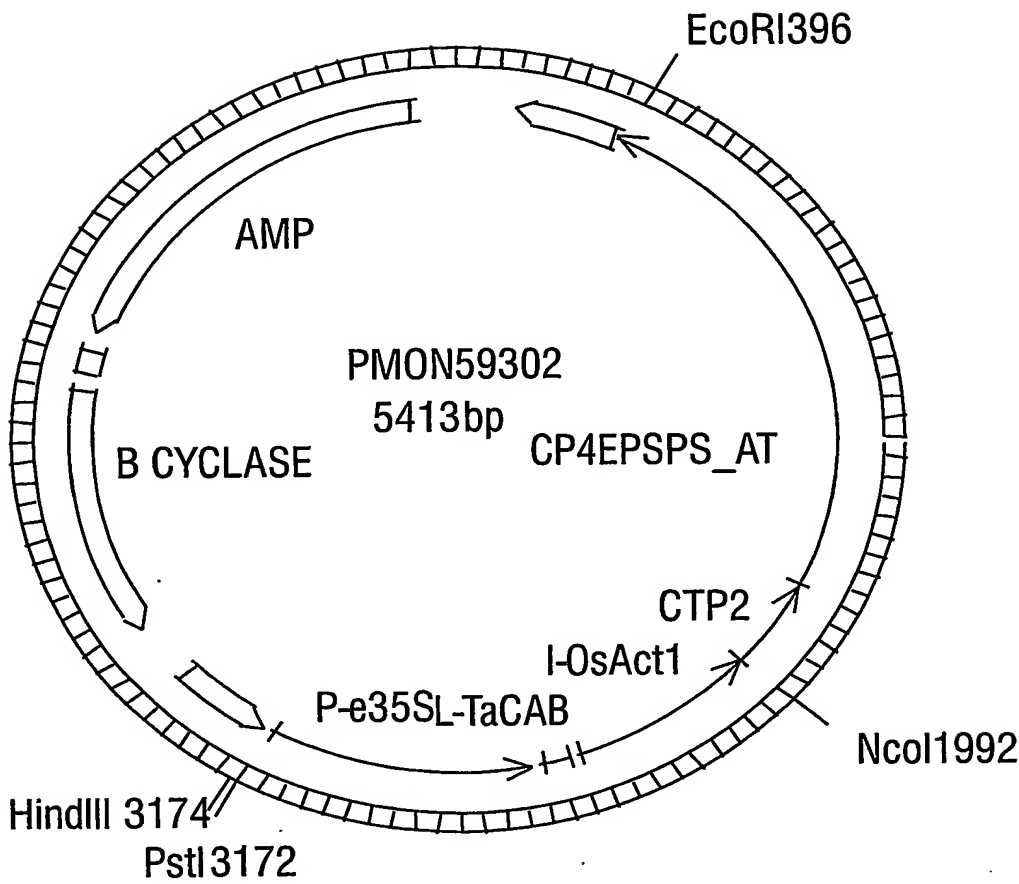


Figure 9

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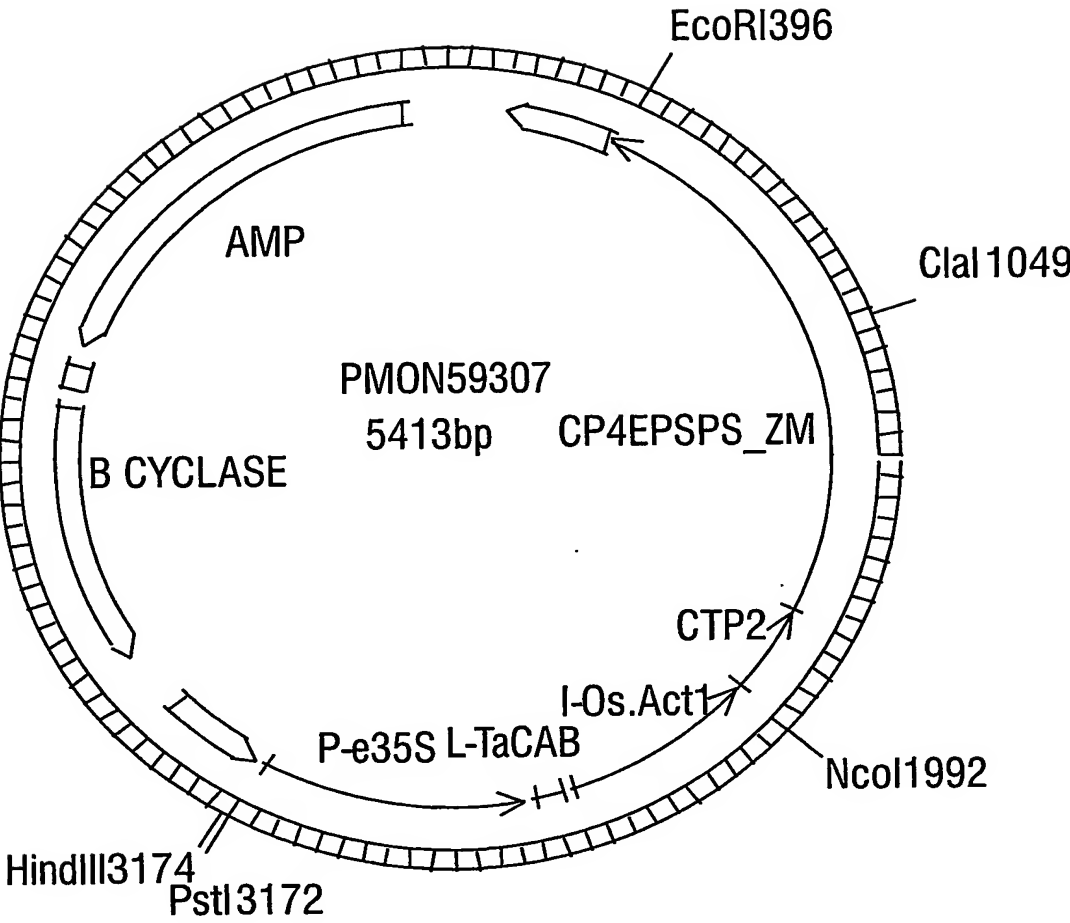


Figure 10

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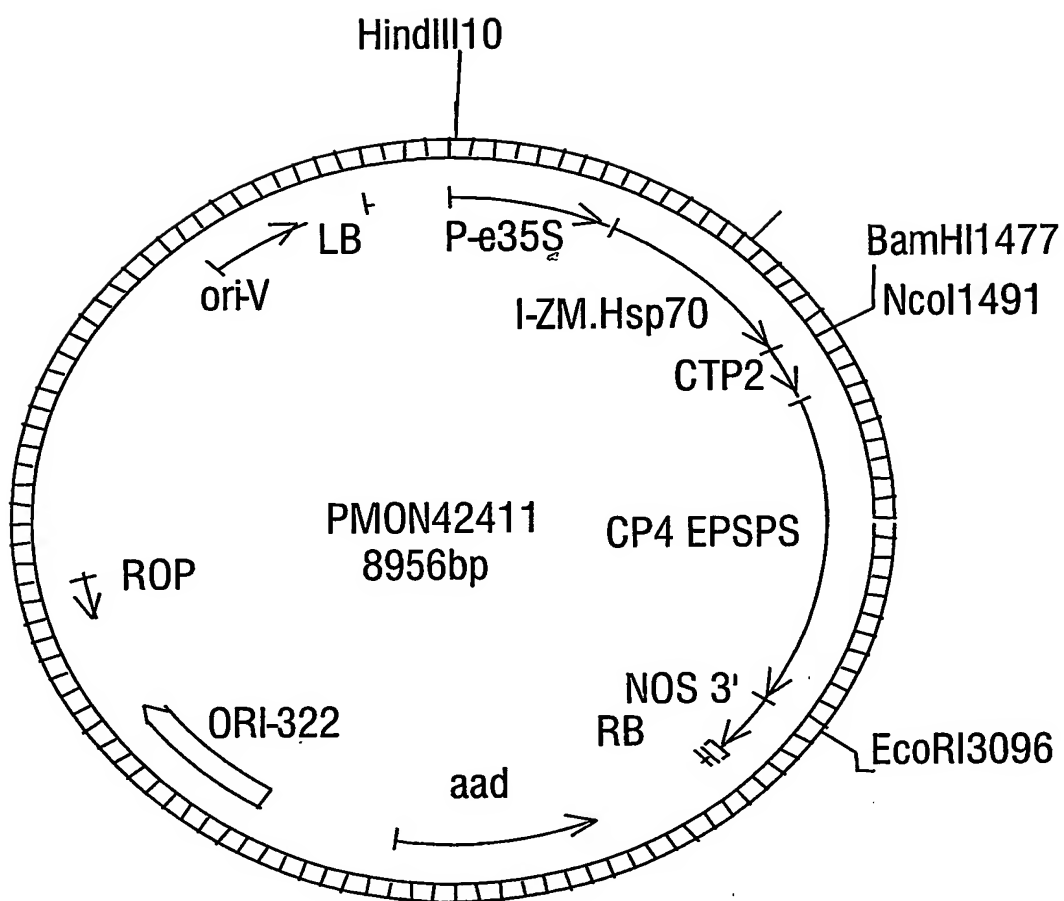


Figure 11

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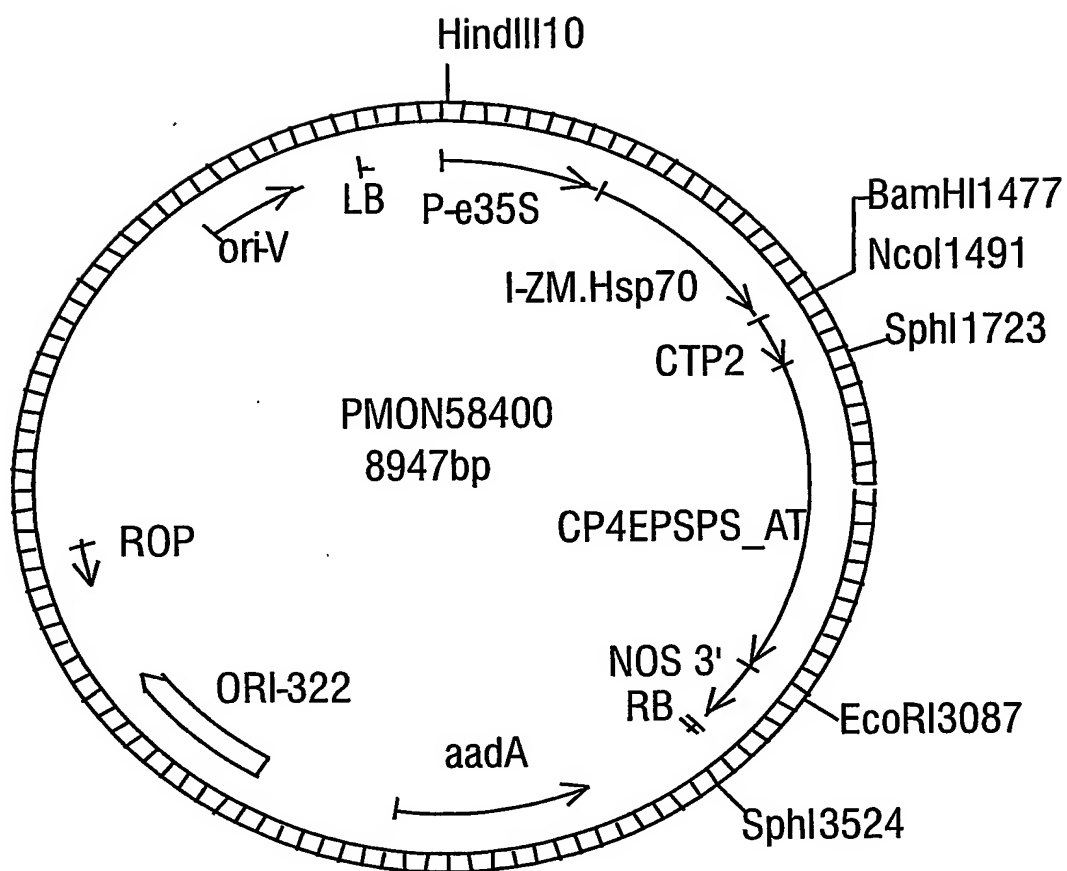


Figure 12

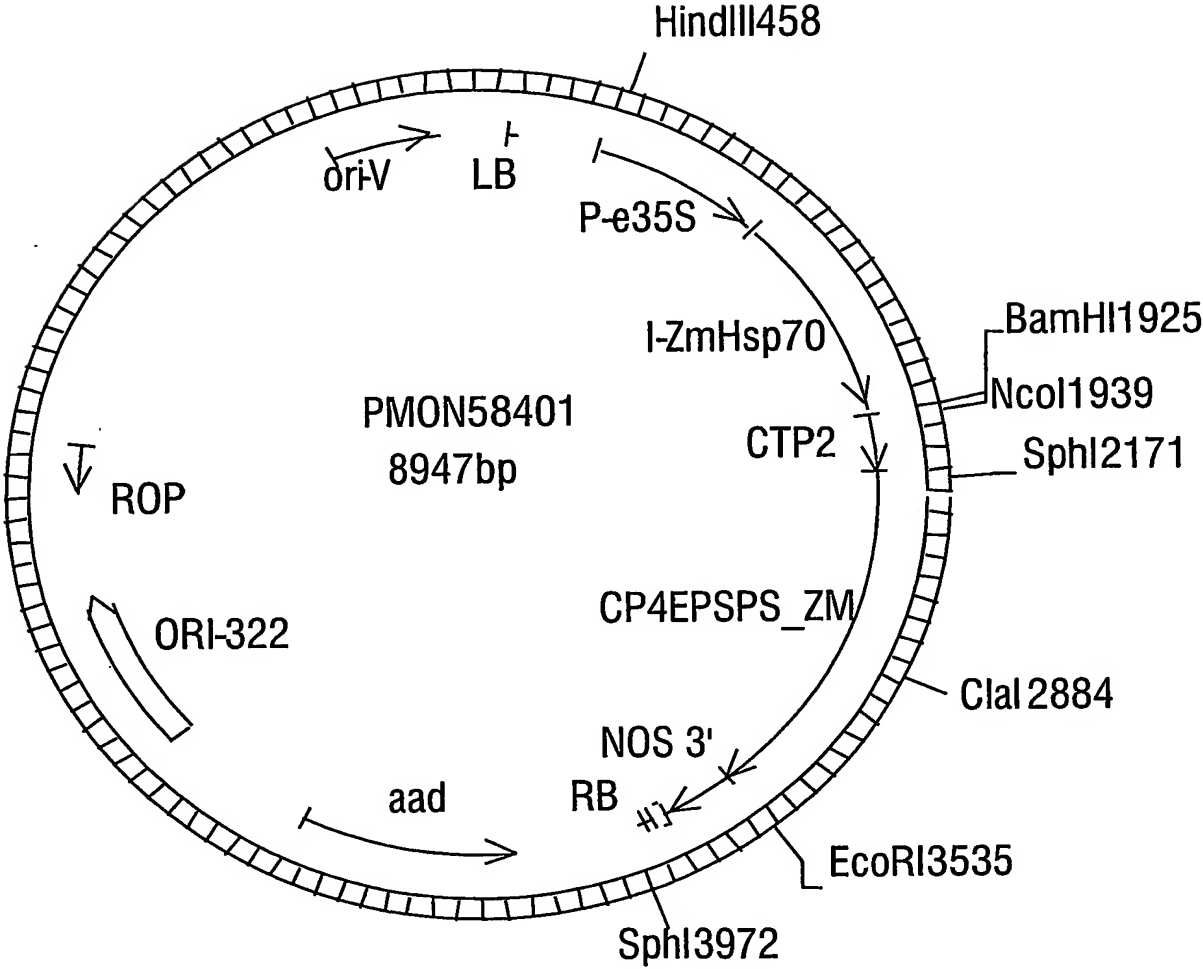


Figure 13

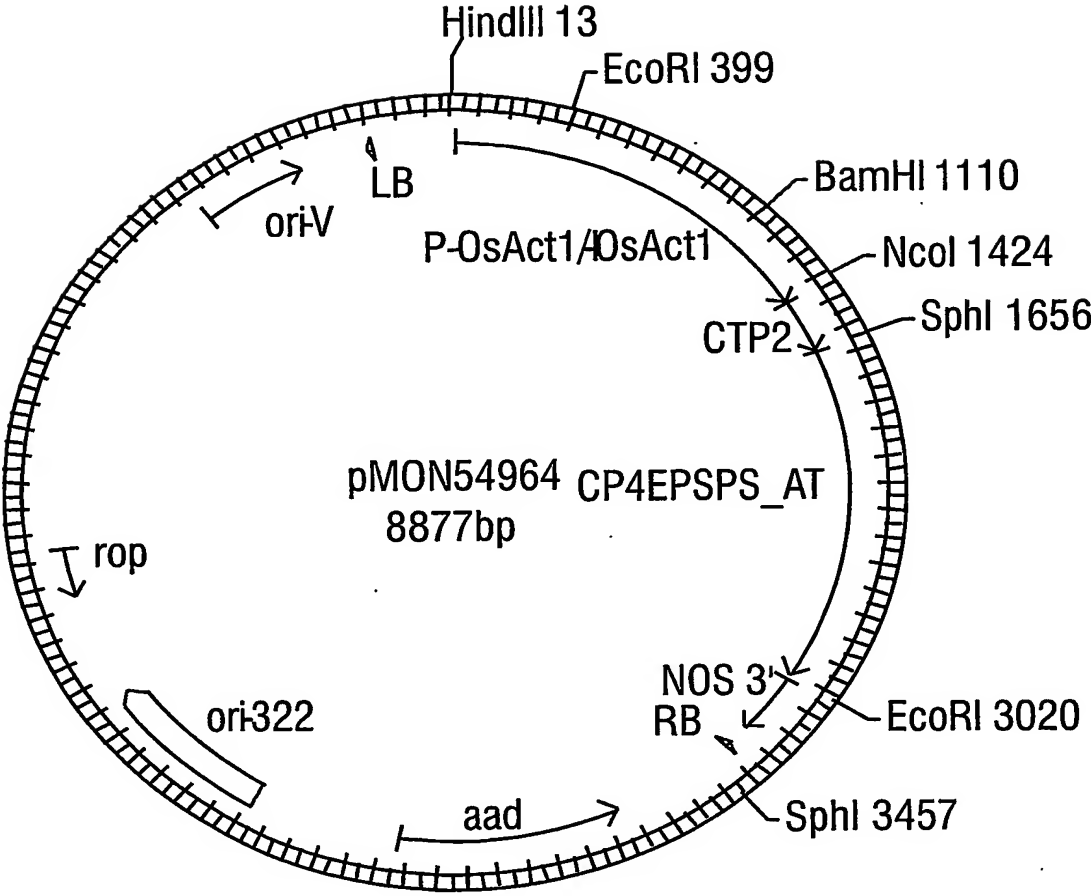


Figure 14

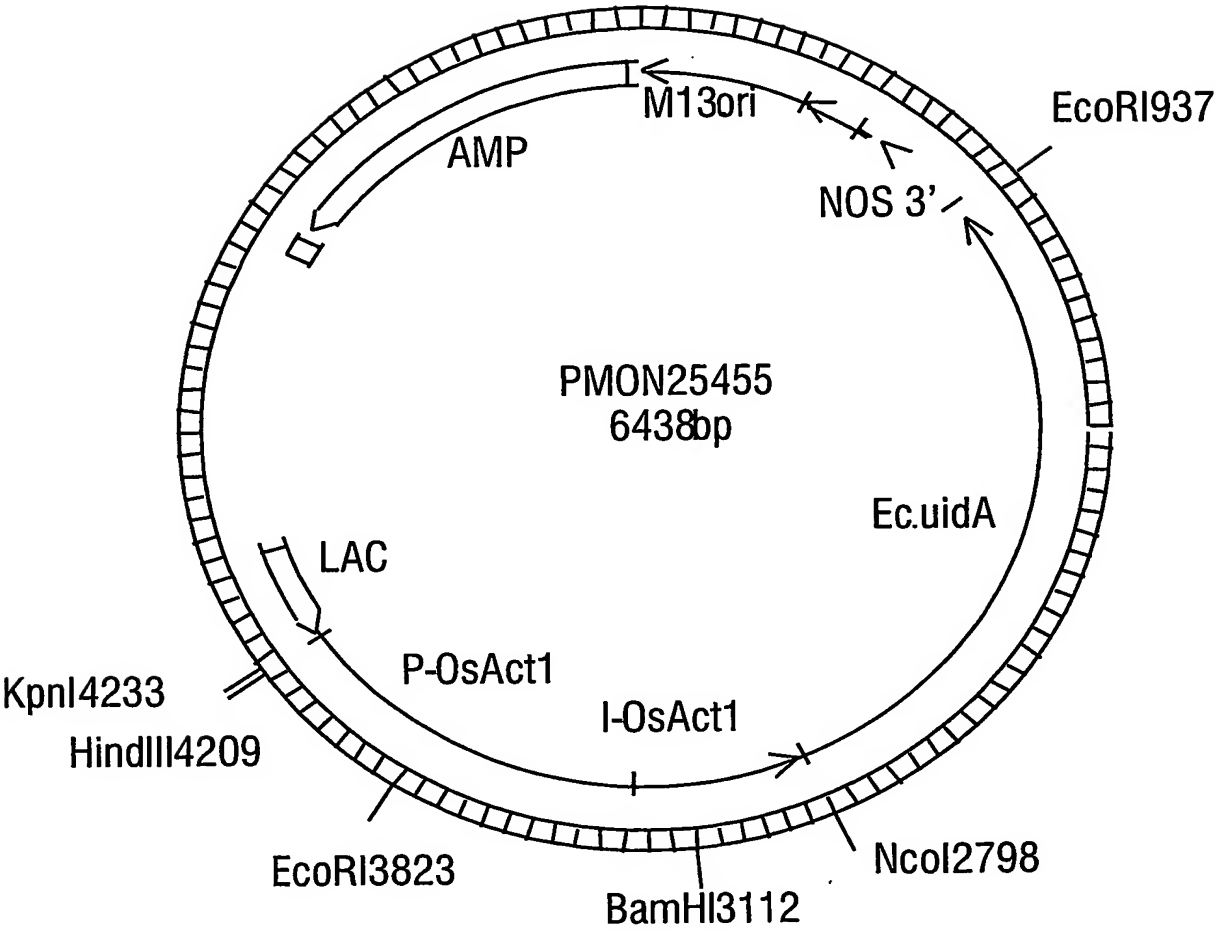


Figure 15

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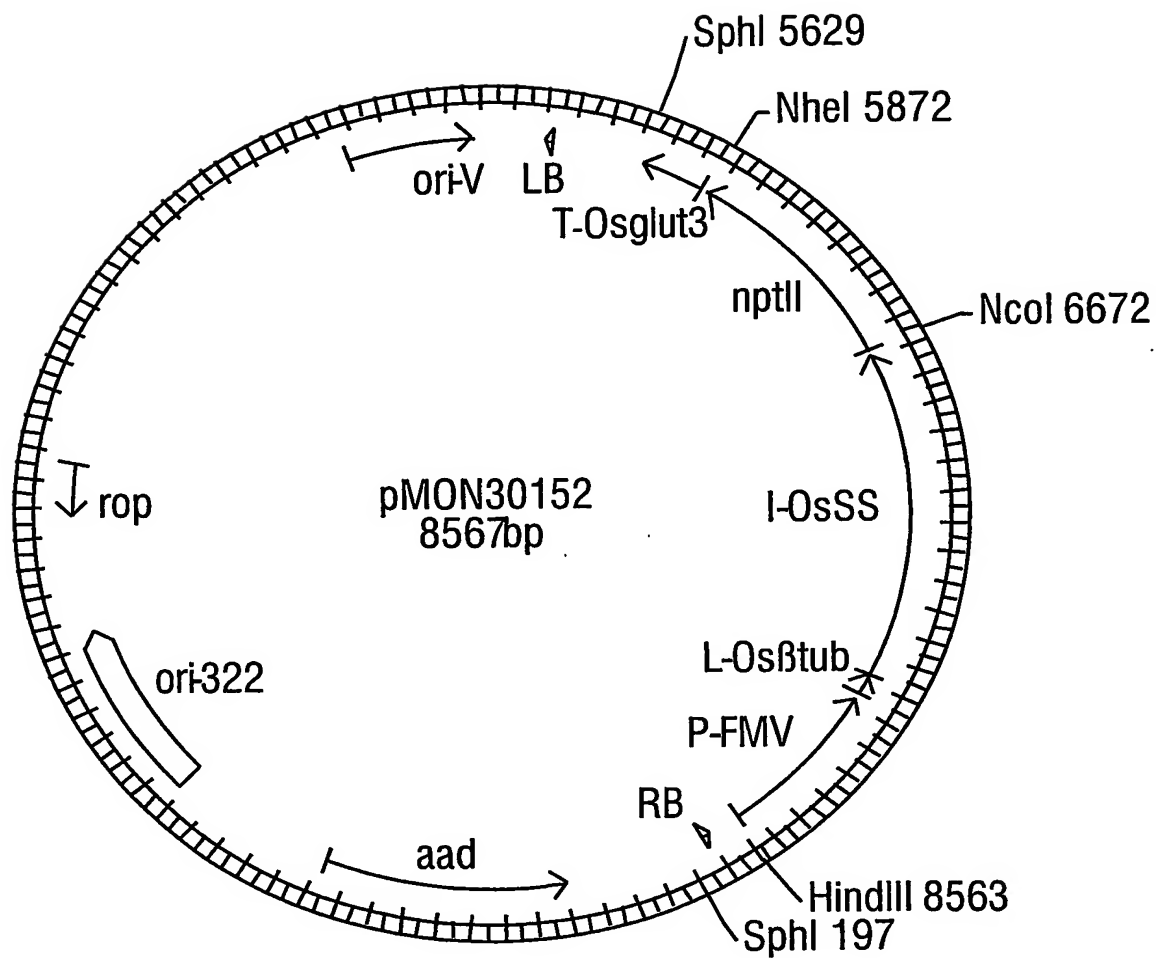


Figure 16

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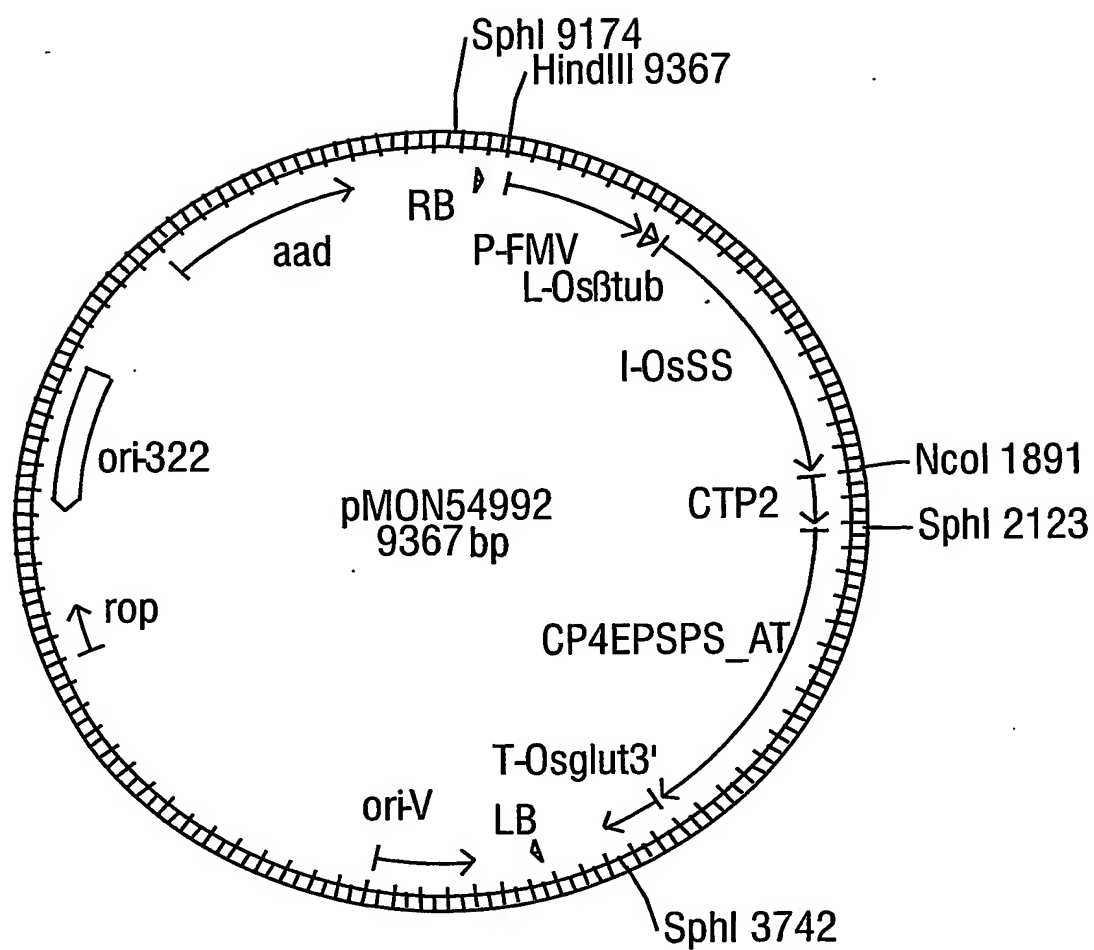


Figure 17

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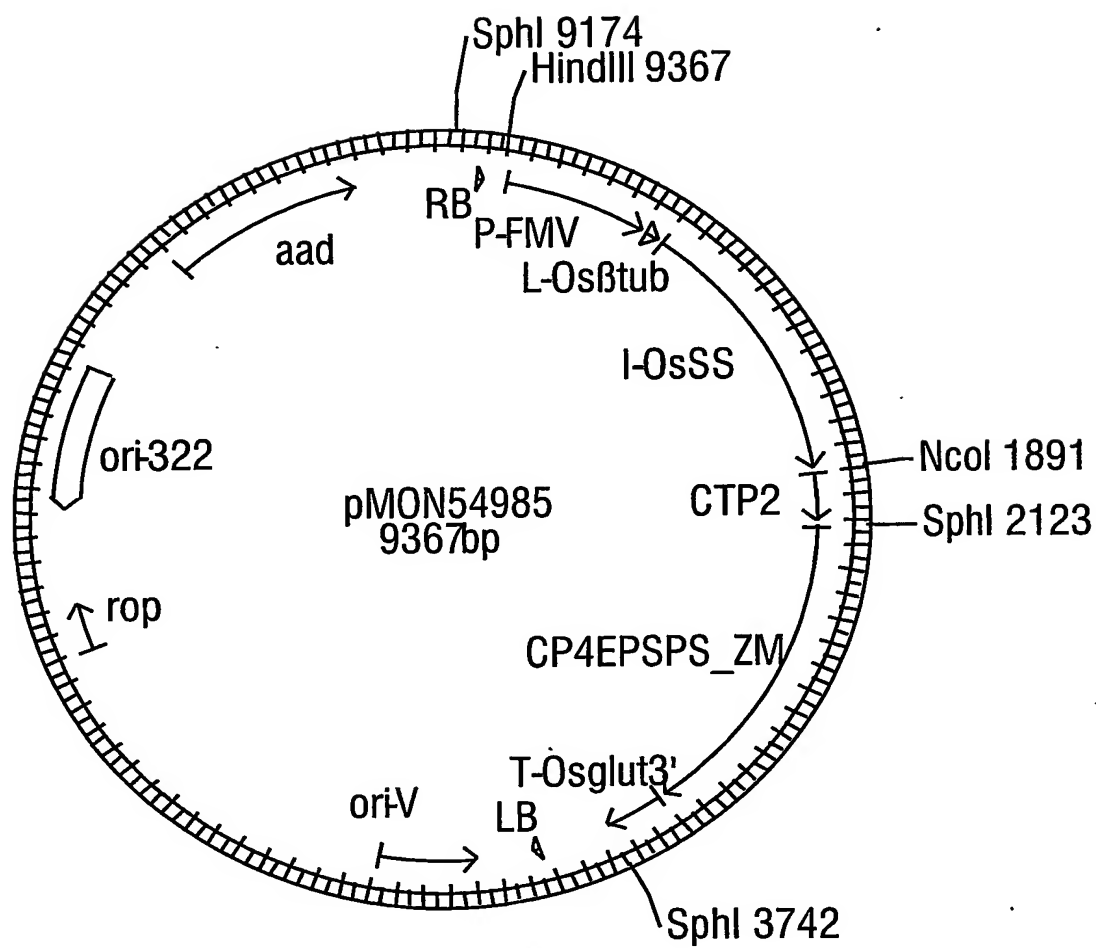


Figure 18

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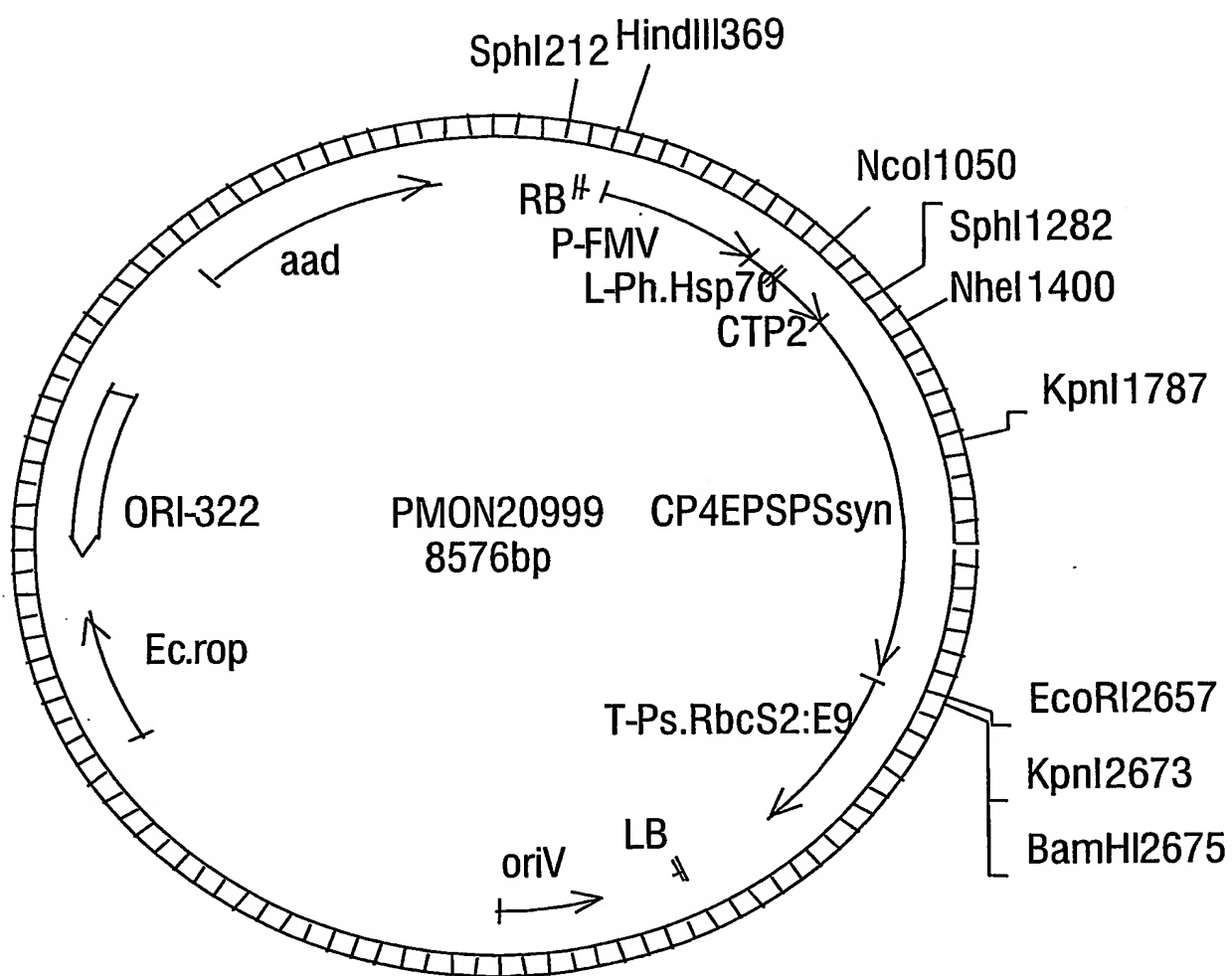


Figure 19

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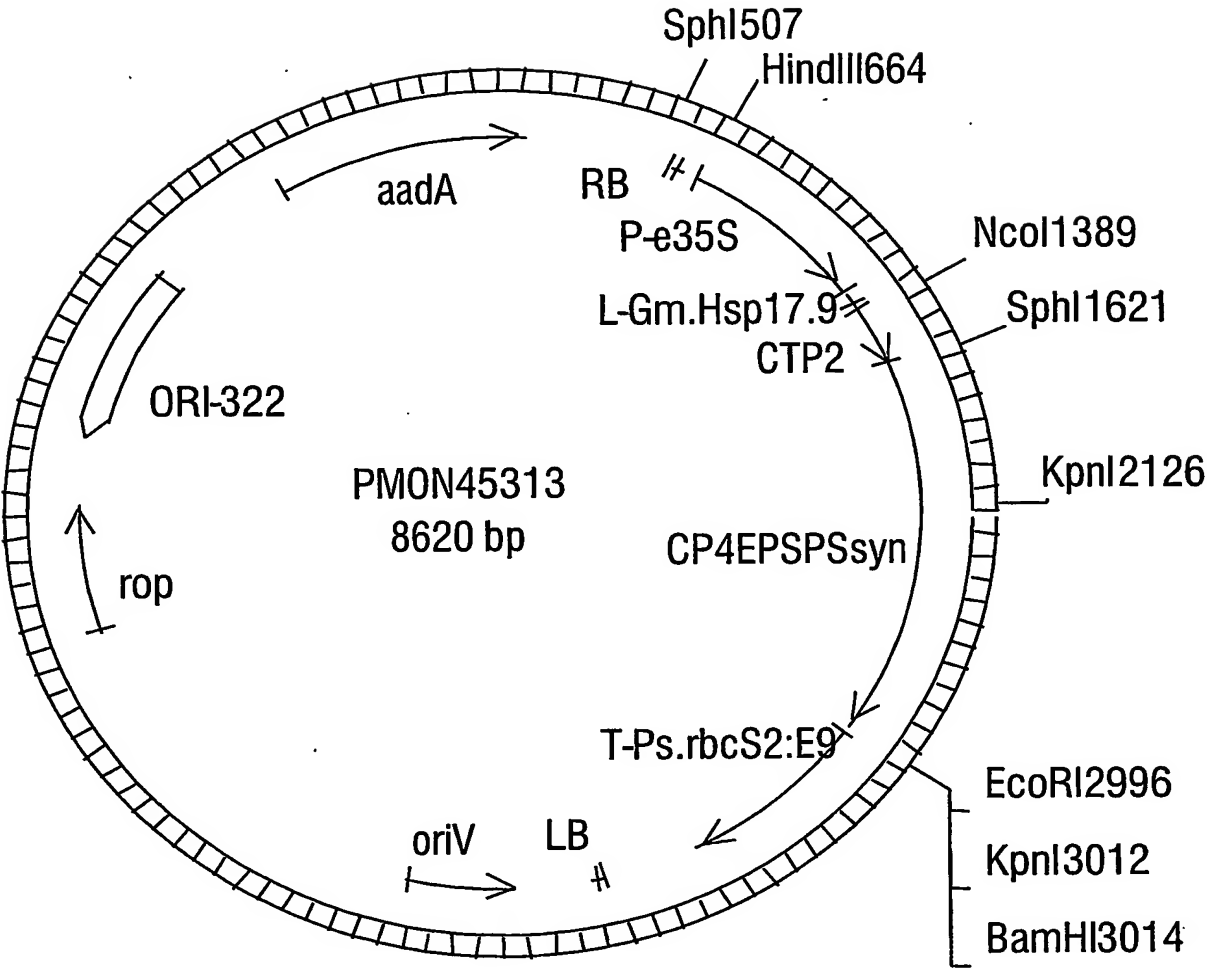


Figure 20

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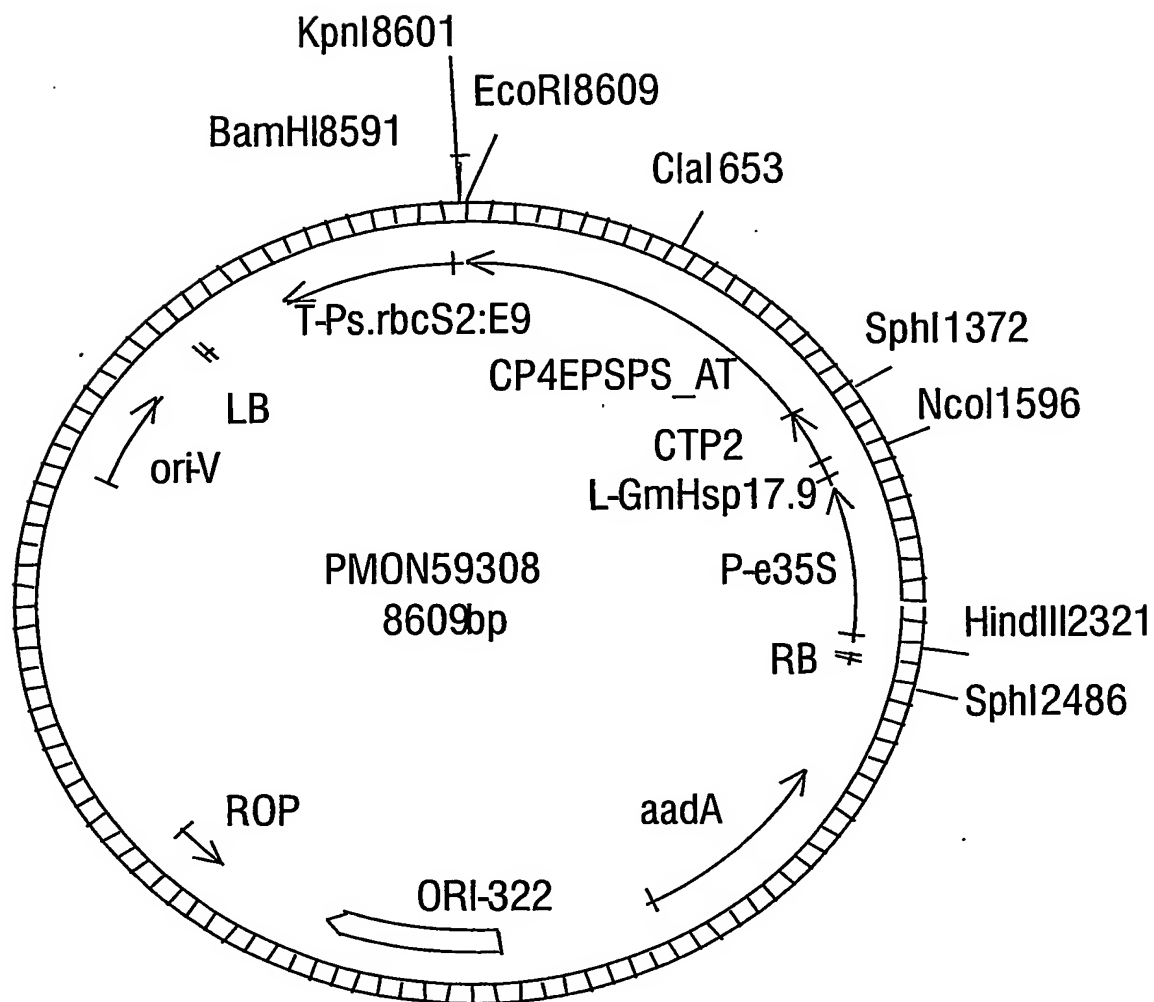


Figure 21

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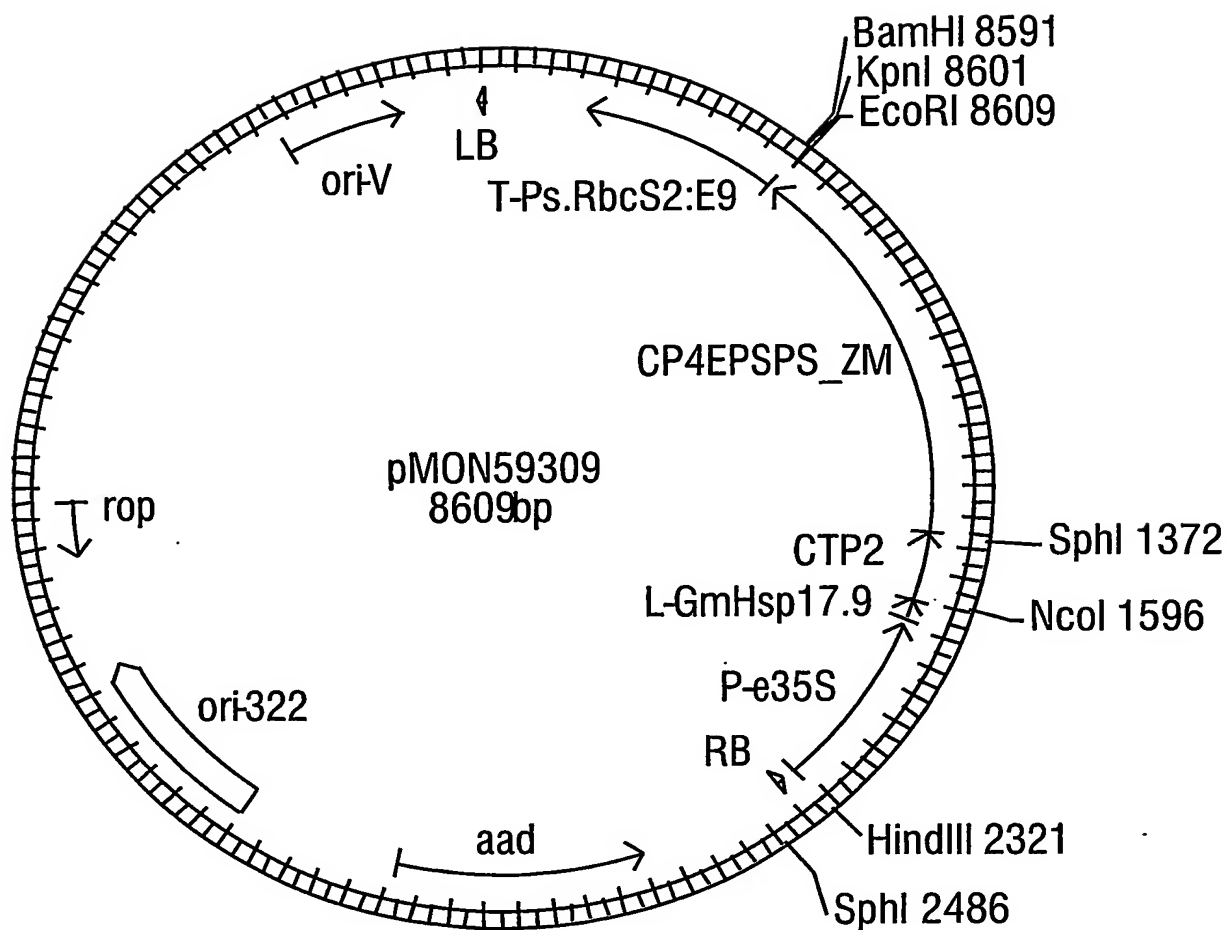


Figure 22

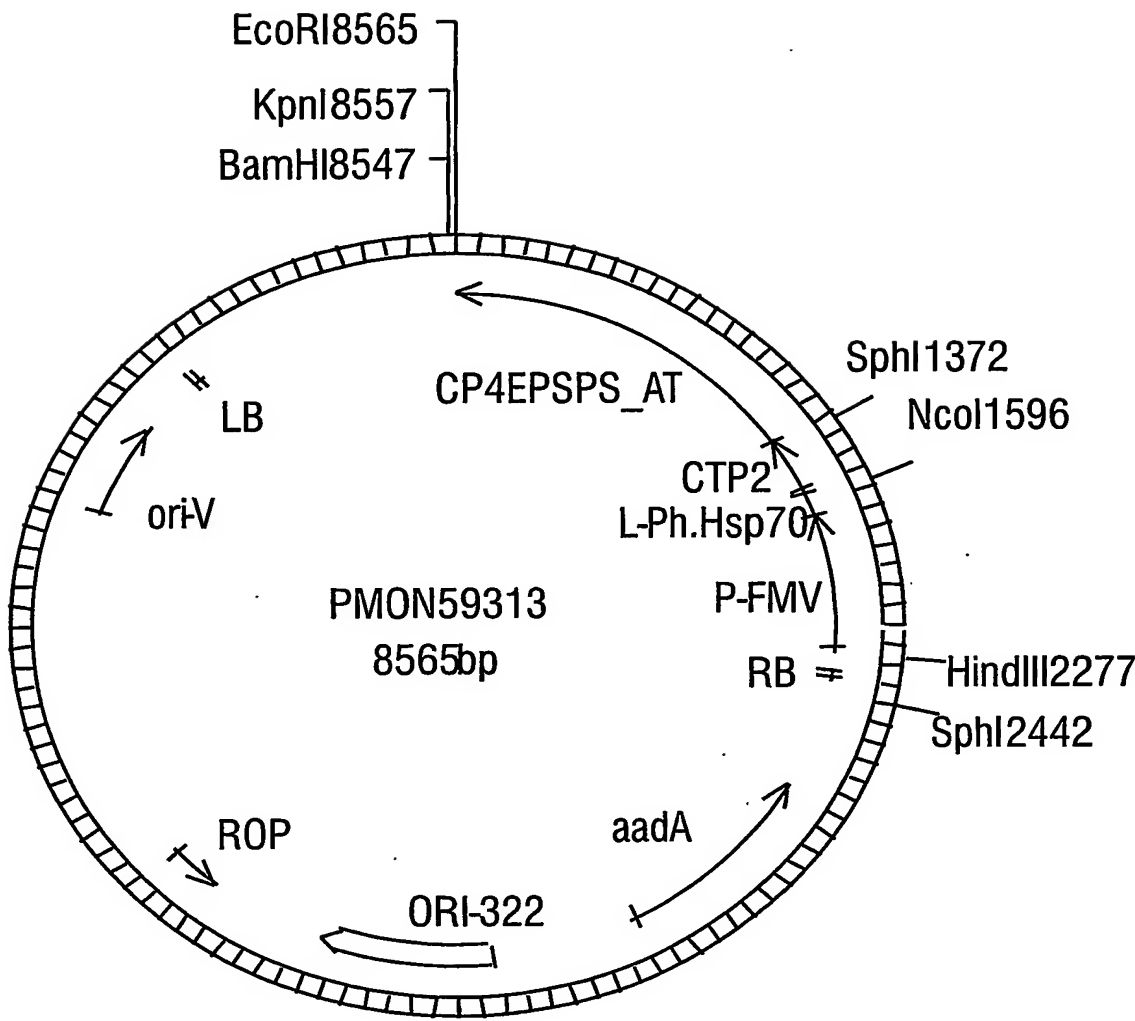


Figure 23

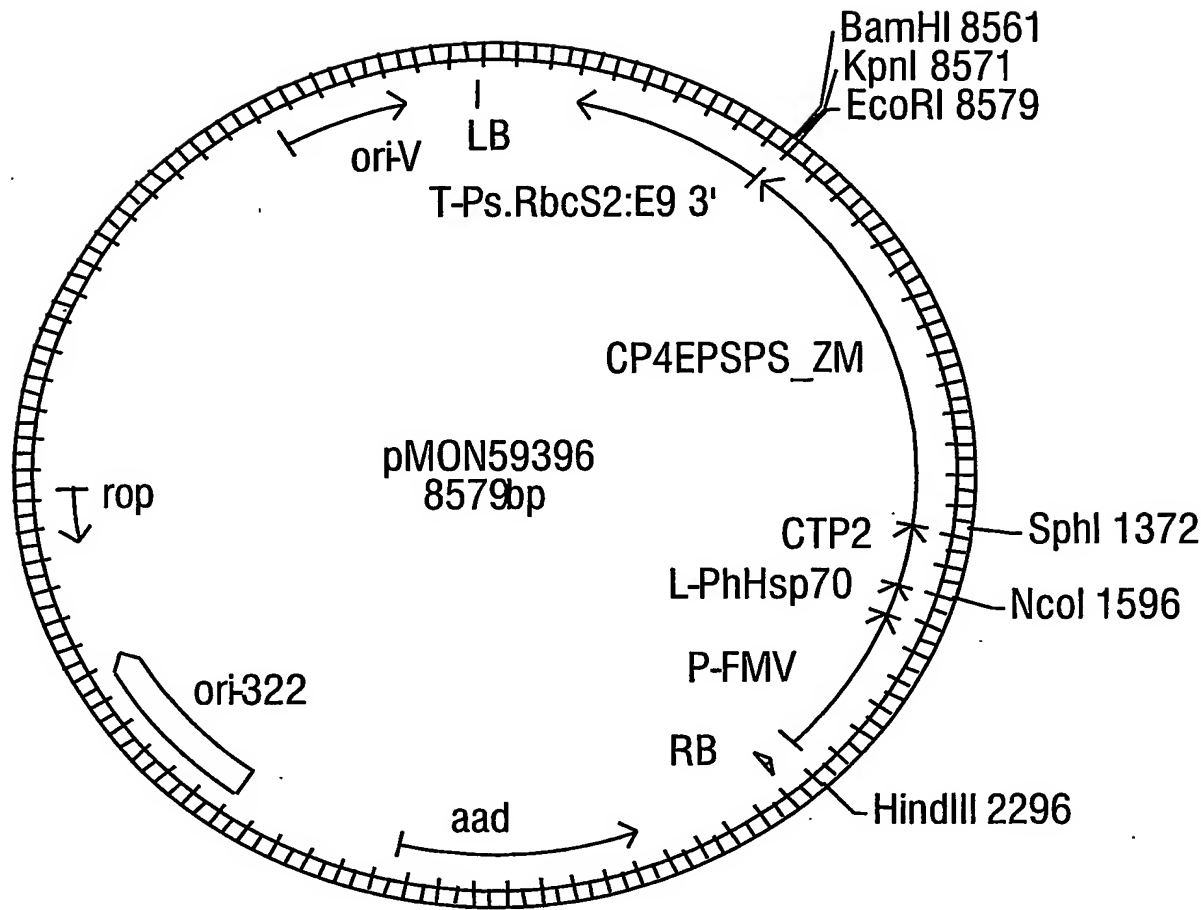


Figure 24

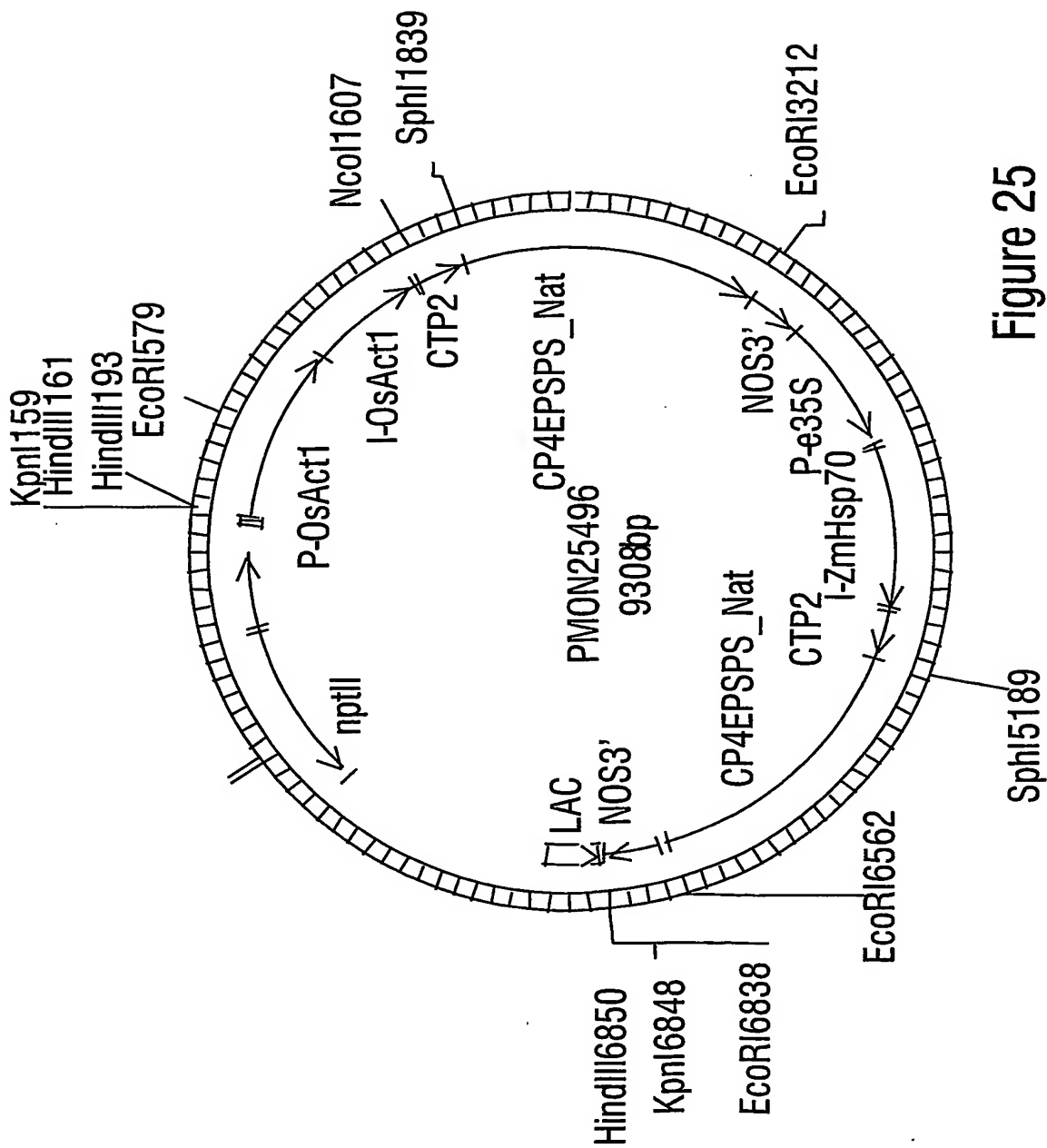


Figure 25